

The Road Inventory of San Joaquin River National Wildlife Refuge Los Banos, CA



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Federal Highway Administration
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INTRODUCTION

The Transportation Equity Act for the 21st Century (Public Law 105-178) created the Refuge Roads Program. Refuge roads are those public roads that provide access to or within a unit of the National Wildlife Refuge System and for which title and maintenance responsibility is vested in the United States Government. Funds from the Highway Trust Fund are available for refuge roads and can be used by the station to pay the cost of:

- (a) Maintenance and improvements of refuge roads.
- (b) Maintenance and improvements of:
 - (1) Adjacent vehicle parking areas
 - (2) Provision for pedestrians and bicycles and
 - (3) Construction and reconstruction of roadside rest areas that are located in or adjacent to wildlife refuges
- (c) Administrative costs associated with such maintenance and improvements.

The funds available for refuge roads are to be disbursed based on the relative needs of the various refuges in the National Wildlife Refuge System, and taking into consideration:

- (a) The comprehensive conservation plan for each refuge;
- (b) The need for access as identified through land use planning; and
- (c) The impact of land use planning on existing transportation facilities.

To determine the relative needs of the U.S. Fish and Wildlife Service, the Federal Highway Administration (FHWA) was asked to inventory all public access roads and parking lots and provide a condition assessment of each. In 2008 the inventory was expanded to include administrative (service use only) roads and parking lots. An FHWA representative meets with refuge personnel to identify route segments and assign route numbers and functional classifications (See Appendix) for each route. All roads and parking lots are mapped using Trimble GPS units and visually assessed for condition using the RSL method of evaluation developed at Utah State University (See Appendix). Culverts, Gates, Guardrails and Low Water Crossings are also mapped and inspected for any obvious defects.

An estimate is provided, in year 2008 dollars, based on the condition determined by the rating system. Estimates are based upon data and location factors from the 2008 RS Means Heavy Construction Cost Data 22nd Annual Edition. Cost estimates should be evaluated on a case-by-case basis when being used for programming purposes.

Native Surfaced roads and parking lots already inventoried will not be re-inventoried and will not appear individually in report chapters 5, 6 and 8. Mileages and areas of native surfaced roads and parking lots will still appear in all summaries in the report and will remain in the road inventory database. In addition to this report, the FHWA will furnish the condition ratings of each route and segment to the Fish and Wildlife Service in a Microsoft Access database so the data can be included in their Real Property Inventory.

San Joaquin River NWR Summaries

Route Miles and Percentages by Functional Class and Condition

Condition Rating (Based on RSL)*

F. C.	Excellent		Good		Fair		Poor		Failed		TOTAL MILES
	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	
I	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
II	0.00	0.0%	0.00	0.0%	0.26	27.4%	0.69	72.6%	0.00	0.0%	0.95
III	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
IV	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
V	0.42	0.9%	33.23	73.9%	11.08	24.6%	0.22	0.5%	0.00	0.0%	44.95
Totals	0.42	0.9%	33.23	72.4%	11.34	24.7%	0.91	2.0%	0.00	0.0%	45.90

*For a description of condition ratings for the various surface types see the Appendix.

Route Miles and Percentages by Surface Type and Condition

Paved Condition Rating [Condition(RSL)]

Surface	Excellent		Good		Fair		Poor		Failed		TOTAL MILES
	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	
AS	0.00	0.0%	0.00	0.0%	1.83	72.6%	0.69	27.4%	0.00	0.0%	2.52
CO	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
Totals	0.00	0.0%	0.00	0.0%	1.83	72.6%	0.69	27.4%	0.00	0.0%	2.52

Unpaved Condition Rating [Condition(RSL)]

Surface	Excellent		Good		Fair		Poor		Failed		TOTAL MILES
	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	
GR	0.32	2.1%	14.73	97.9%	0.00	0.0%	0.00	0.0%	0.00	0.0%	15.05
NA	0.10	0.4%	15.48	62.2%	9.09	36.5%	0.22	0.9%	0.00	0.0%	24.89
PR	0.00	0.0%	3.02	87.8%	0.42	12.2%	0.00	0.0%	0.00	0.0%	3.44
Totals	0.42	1.0%	33.23	76.6%	9.51	21.9%	0.22	0.5%	0.00	0.0%	43.38

Square Footage (Parking Areas)

Condition Rating

Surface	Excellent		Good		Fair		Poor		Failed		Total Square Feet
	Square Feet	%	Square Feet	%	Square Feet	%	Square Feet	%	Square Feet	%	
AS	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
CO	0	0.0%	664	100.0%	0	0.0%	0	0.0%	0	0.0%	664
GR	0	0.0%	89,689	80.6%	21,629	19.4%	0	0.0%	0	0.0%	111,318
NA	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
PR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Totals	0	0.0%	90,353	80.7%	21,629	19.3%	0	0.0%	0	0.0%	111,982

San Joaquin River NWR Summaries

Route Miles and Percentages by Use Type and Condition

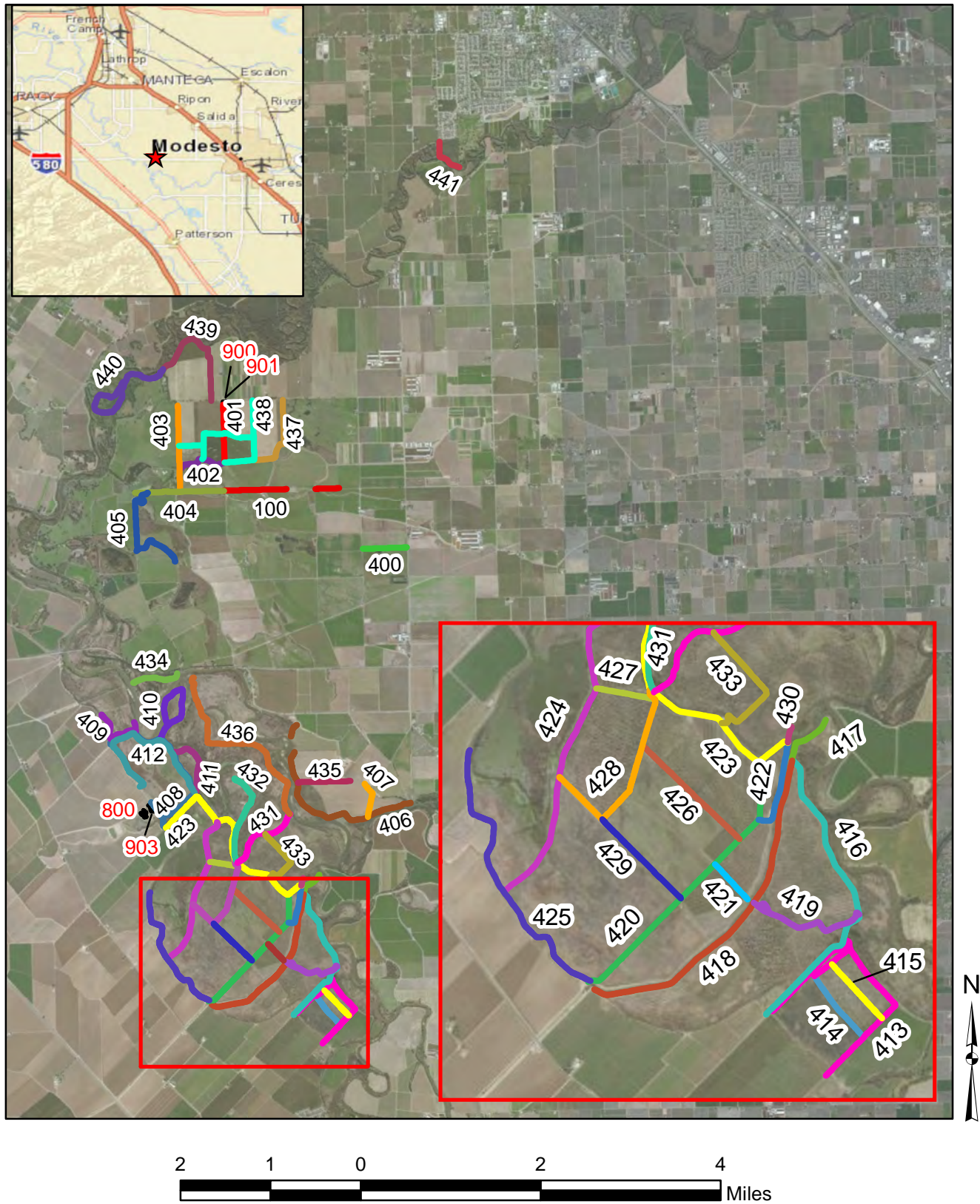
Road Condition Rating: Public/Administrative Use

USE TYPE	Excellent		Good		Fair		Poor		Failed		TOTAL MILES
	MILES	%	MILES	%	MILES	%	MILES	%	MILES	%	
Public (FC I-III)	0.00	0.0%	0.00	0.0%	0.26	27.4%	0.69	72.6%	0.00	0.0%	0.95
Admin (FC IV-V)	0.42	0.9%	33.23	73.9%	11.08	24.6%	0.22	0.5%	0.00	0.0%	44.95
Totals	0.42	0.9%	33.23	72.4%	11.34	24.7%	0.91	2.0%	0.00	0.0%	45.90

Parking Condition Rating: Public/Administrative Use

USE TYPE	Excellent		Good		Fair		Poor		Failed		Total Sq Ft
	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	
Public	0	0.0%	43393	66.7%	21629	33.3%	0	0.0%	0	0.0%	65,022
Admin	0	0.0%	46960	100.0%	0	0.0%	0	0.0%	0	0.0%	46,960
Totals	0	0.0%	90,353	80.7%	21,629	19.3%	0	0.0%	0	0.0%	111,982

San Joaquin River National Wildlife Refuge Route Location Map



San Joaquin River NWR - 81654

Route Identification List

Shading Color Key:

White = Paved Routes
Yellow = Unpaved Routes

RTE #	Asset Number	ROUTE NAME	RTE MI	ROUTE DESCRIPTION	PAVED MI	UN-PAVED MI	LANES	FC
100	10000969	Shoemake Road	0.95	From Shoemake Administrative Road (Route 404) to End of Route	0.95	-	2	2
400	-	North Nelson Lake Unit Road	0.49	From North Gates Road to End of Route	-	0.49	1	5
401	10048308	Page and Dairy Fields Road	0.64	From Beckwith Overlook Parking (Route 900) to Page Lake Perimeter Road (Route 402)	-	0.64	1	5
402	10000971	Page Lake Perimeter Road	0.57	From Page and Dairy Fields Road (Route 401) to Page Lake Road (Route 403)	-	0.57	1	5
403	10000970	Page Lake Road	0.96	From Beckwith Road to Shoemake Administrative Road (Route 404)	-	0.96	2	5
404	10000969	Shoemake Administrative Road	0.99	From Shoemake Road (Route 100) to Miller Lake	-	0.99	2	5
405	10048306	Maze Bottoms Road	1.43	From Shoemake Administrative Road (Route 404) to End of Route	-	1.43	2	5
406	10000974	Colwell Levee Road	2.10	From 3/4 mile West of Paradise Road to End of Route	-	2.10	1	5
407	10000974	Colwell and Units West Access Road	0.40	From Colwell Levee Road (Route 406) to End of Route	-	0.40	1	5
408	10000983	Vierra Levee Road	2.20	From Pelican Road to Pelican Road	-	2.20	2	5
409	10048314	North Vierra Dirt Road	0.74	From Vierra Dirt Road (Route 408) to End of Route	-	0.74	1	5
410	10048314	Lollipop Vierra Dirt Road	1.17	From Vierra Levee Road (Route 408) to End of Loop	-	1.17	1	5
411	10048314	Old River Vierra Dirt Road	0.72	From Vierra Levee Road (Route 408) to back to Vierra Levee Road (Route 408)	-	0.72	1	5
412	10048314	South Vierra Dirt Road	1.96	From Vierra Levee Road (Route 408) to Pelican Road	-	1.96	1	5
413	10000975	Arambel Alfalfa Field Road	1.79	From 3/4 mile North East of River Road to End of Route	-	1.79	1	5
414	10048352	Arambel Interior Road A	0.44	From Arambel Alfalfa Field Road (Route 413) to Arambel Alfalfa Field Road (Route 413)	-	0.44	1	5
415	10048352	Arambel Interior Road B	0.39	From Arambel Alfalfa Field Road (Route 413) to Arambel Alfalfa Field Road (Route 413)	-	0.39	1	5
416	10000972	Page Lake Perimeter Road	1.67	Form .9 Miles North East of River Road to Lara Upper East Access Road (Route 417)	-	1.67	1	5
417	-	Lara Upper East Access Road	0.30	From Lara Field Road (Route 418) to End of Route	-	0.30	1	5
418	10000976	Lara Field Road	1.82	From Page Lake Perimeter Road (Route 416) to East/West Stanislaus Road	-	1.82	2	5
419	10048351	Lara Field Interior Road	0.76	From Lara Field Road (Route 418) to Page Lake Perimeter Road (Route 416)	-	0.76	1	5
420	10000964	West Stanislaus Road Extension	1.57	From East/West Stanislaus Road to Hagemann Flood Levee Road (Route 423)	1.57	-	2	5
421	10048316	Hagemann Unit Farm Field 4 Road	0.25	From West Stanislaus Road Extension (Route 420) to End of Route	-	0.25	1	5
422	10048316	Hagemann Unit Big Barn Road	0.49	From West Stanislaus Road Extension (Route 420) to Hagemann Flood Levee Road (Route 423)	-	0.49	1	5
423	10000973	Hagemann Flood Levee Road	2.40	From Hagemann Unit Big Barn Road (Route 422) to Vierra Levee Road (Route 408)	-	2.40	1	5
424	10000977*	Hagemann Main Drain Road	1.73	From Hagemann Flood Levee Road (Route 422) to White Lake Main Drain Road (Route 425)	-	1.73	1	5

* Route has more than one Asset Number

NUMERIC ROUTE ID

4a-1

San Joaquin River NWR - 81654

Route Identification List

Shading Color Key:

White = Paved Routes
Yellow = Unpaved Routes

RTE #	Asset Number	ROUTE NAME	RTE MI	ROUTE DESCRIPTION	PAVED MI	UN-PAVED MI	LANES	FC
425	10048316	White Lake Main Drain Road	1.55	From West Stanislaus Road Extension (Route 420) to End of Route	-	1.55	1	5
426	10048316	Hagemann Field 23 Road	0.72	From West Stanislaus Road Extension (Route 420) to Hagemann Field 21 Road (Route 428)	-	0.72	1	5
427	10048316	Hagemann Field 20 Road	0.31	From Hagemann Field 21 Road (Route 428) to Hagemann Main Drain Road (Route 424)	-	0.31	1	5
428	10048316	Hagemann Field 21 Road	1.10	From Hagemann Flood Levee Road (Route 423) to Hagemann Main Drain Road (Route 424)	-	1.10	1	5
429	10048316	Hagemann Field 22 Road	0.59	From Hagemann Field 21 Road (Route 428) to West Stanislaus Road Extension (Route 420)	-	0.59	1	5
430	10048316	Hagemann Tuolumne River Road	0.09	From Hagemann Flood Levee Road (Route 423) to End of Route	-	0.09	1	5
431	10048316	Hagemann South Christman Road	0.88	From Hagemann Flood Levee Road (Route 423) to End of Route	-	0.88	1	5
432	10048316	Hagemann Peninsula Road	1.10	From Hagemann South Christman Road (Route 431) to End of Route	-	1.10	1	5
433	10048316	Hagemann Field 9 Drain Road	0.78	From Hagemann South Christman Road (Route 431) to Hagemann Flood Levee Road (Route 423)	-	0.78	1	5
434	10048312	Gardner's Cove Road	0.54	From State Highway 132 to End of Route	-	0.54	1	5
435	10000974	Colwell and Units Central Access Road	0.59	From .25 miles West of Colwell and Units West Access Road to Colwell Levee Road (Route 406)	-	0.59	1	5
436	-	Christman Island Access Road	2.28	From Hagemann South Christman Road (Route 431) to End of Route	-	2.28	1	5
437	-	Ringneck Road	0.92	From Beckswith Road to Goose and Paige Lake Access Road (Route 438)	-	0.92	1	5
438	-	Goose and Paige Lake Access Road	2.13	From Beckswith Road to Paige Lake Road (Route 403)	-	2.13	1	5
439	-	Buffington Flood Levee Access Road	1.30	From Beckswith Road to Hatmark Loop Road (Route 440)	-	1.30	1	5
440	-	Hatmark Loop Road	1.67	From Buffington Flood Levee Access Road (Route 439) to end of loop	-	1.67	1	5
441	-	Mohler Tract Road	0.42	From Refuge Boundary to Refuge Boundary	-	0.42	1	5

* Route has more than one Asset Number

NUMERIC ROUTE ID

4a-2

San Joaquin River NWR - 81654

Route Identification List (Parking)

Shading Color Key:

White = Paved Routes
Green = Unpaved Routes

Route #	Asset Number	ROUTE NAME	Area (Sq Ft)	ROUTE DESCRIPTION	Surface Type
800	-	Shop Parking	46,960	From Dairy Road	Gravel
900	10048300	Beckwith Overlook Parking	21,629	From Beckwith Road	Gravel
901	-	Beckwith Overlook Handicapped Parking	664	From Beckwith Road	Concrete
903	-	Pelican Nature Trail Parking	42,729	From Dairy Road	Gravel

CHANGES TO THE FISH AND WILDLIFE SERVICE ROAD INVENTORY REPORT

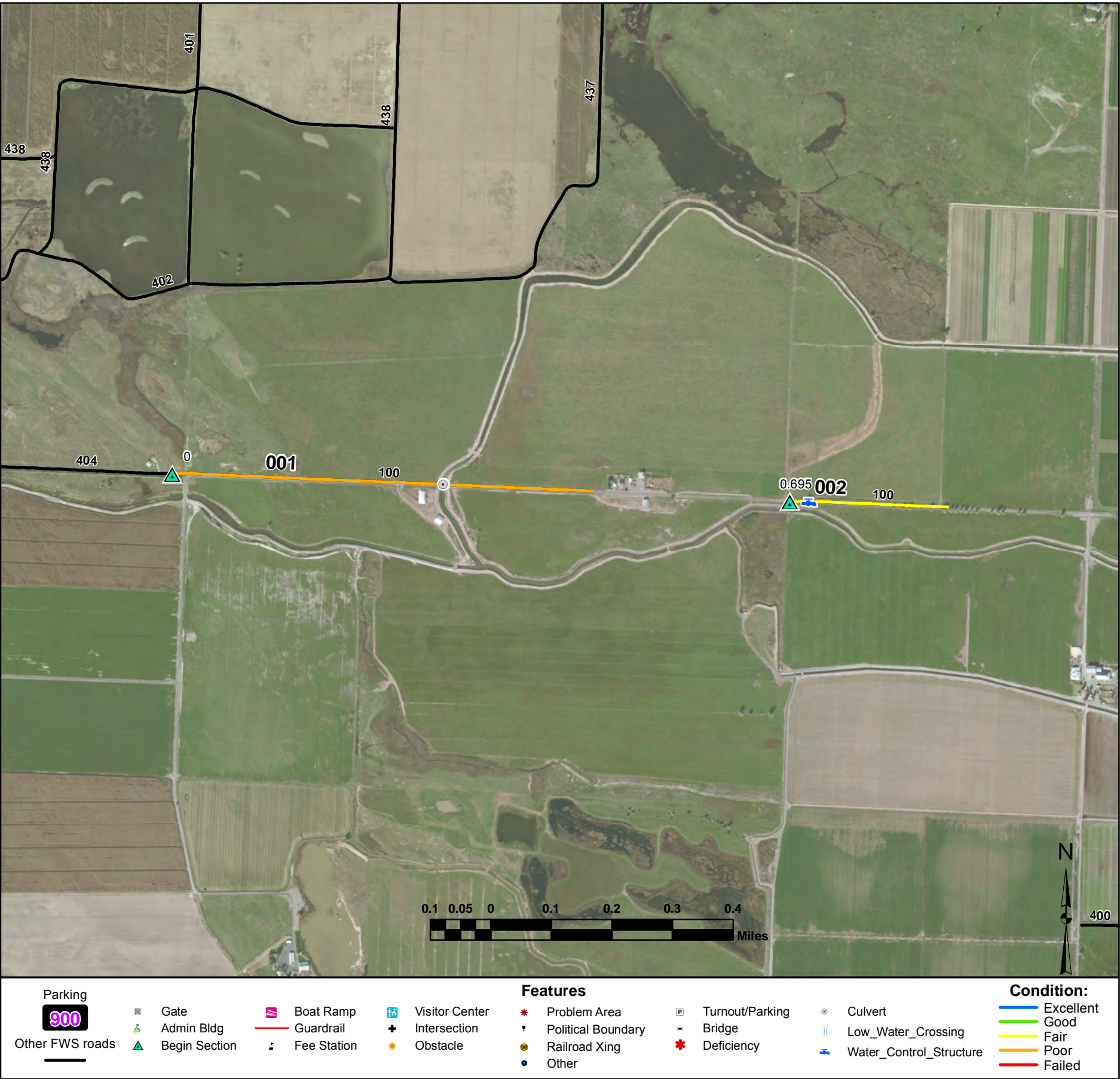
San Joaquin River NWR

Routes added to previous inventory:		
Rte #	Rte Name	Reason For Addition
100	Shoemake Road	New Public Route
400	North Nelson Lake Unit Road	New Administrative Route
401	Page and Dairy Fields Road	New Administrative Route
402	Page Lake Perimeter Road	New Administrative Route
403	Page Lake Road	New Administrative Route
404	Shoemake Administrative Road	New Administrative Route
405	Maze Bottoms Road	New Administrative Route
406	Colwell Levee Road	New Administrative Route
407	Colwell and Units West Access Road	New Administrative Route
408	Vierra Levee Road	New Administrative Route
409	North Vierra Dirt Road	New Administrative Route
410	Loilpop Vierra Dirt Road	New Administrative Route
411	Old River Vierra Dirt Road	New Administrative Route
412	South Vierra Dirt Road	New Administrative Route
413	Arambel Alfalfa Field Road	New Administrative Route
414	Arambel Interior Road A	New Administrative Route
415	Arambel Interior Road B	New Administrative Route
416	Page Lake Perimeter Road	New Administrative Route
417	Lara Upper East Access Road	New Administrative Route
418	Lara Field Road	New Administrative Route
419	Lara Field Interior Road	New Administrative Route
420	West Stanislaus Road Extension	New Administrative Route
421	Hagemann Unit Farm Field 4 Road	New Administrative Route
422	Hagemann Unit Big Barn Road	New Administrative Route
423	Hagemann Flood Levee Road	New Administrative Route
424	Hagemann Main Drain Road	New Administrative Route
425	White Lake Main Drain Road	New Administrative Route
426	Hagemann Field 23 Road	New Administrative Route
427	Hagemann Field 20 Road	New Administrative Route
428	Hagemann Field 21 Road	New Administrative Route
429	Hagemann Field 22 Road	New Administrative Route
430	Hagemann Tuolumne River Road	New Administrative Route
431	Hagemann South Christman Road	New Administrative Route
432	Hagemann Peninsula Road	New Administrative Route
433	Hagemann Field 9 Drain Road	New Administrative Route
434	Gardner's Cove Road	New Administrative Route
435	Colwell and Units Central Access Road	New Administrative Route
436	Christman Island Access Road	New Administrative Route
437	Ringneck Road	New Administrative Route
438	Goose and Paige Lake Access Road	New Administrative Route
439	Buffington Flood Levee Access Road	New Administrative Route
440	Hatmark Loop Road	New Administrative Route
441	Mohler Tract Road	New Administrative Route
800	Shop Parking	New Administrative Route
900	Beckwith Overlook Parking	New Public Route
901	Beckwith Overlook Handicapped Parking	New Public Route
903	Pelican Nature Trail Parking	New Public Route

Routes removed from previous inventory:		
Rte #	Rte Name	Reason For Removal

Routes modified from previous inventory:			
Rte #	Rte Name	Type of Modification	Description of Modification

Comments:



Culvert

Low_Water_Crossing

Water_Control_Structure

Excellent

Good

Fair

Poor

Failed

Shoemake Road

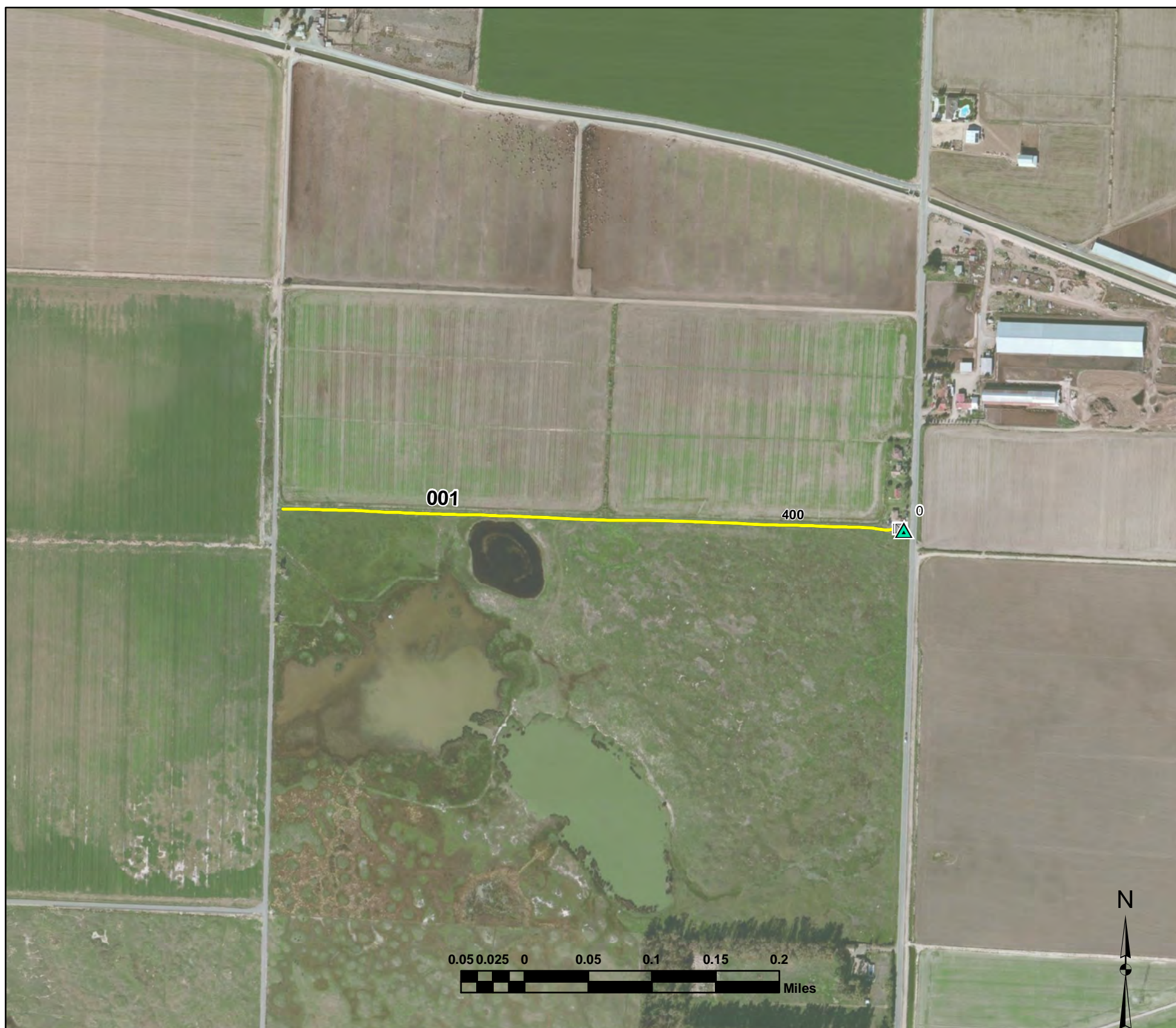
From Shoemake Administrative Road (Route 404) to End of Route

Route Number: 100

Total Route Mileage: 0.96

Asset Number	10000969	10000969			
Section Number	001	002			
Section Length (miles)	0.69	0.26			
Inspection Date	01-23-2012	01-23-2012			
Surface Type	Asphalt	Asphalt			
Number of Lanes	2	2			
Roadway Width (feet)	20	20			
Condition	Poor	Fair			
Remaining Service Life (years)	6	8			
Estimated Cost to Repair	\$493,200	\$34,100			
Current Replacement Value	\$1,001,000	\$377,200			

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Culvert	001-0.45						
Begin Section	002-0.7						
Water Control Structure	002-0.73						



Parking			Features			Condition:		
		Gate		Boat Ramp		Problem Area		Excellent
		Admin Bldg		Guardrail		Political Boundary		Good
		Begin Section		Fee Station		Railroad Xing		Fair
				Intersection		Deficiency		Poor
				Obstacle		Turnout/Parking		Water_Control_Structure
						Culvert		Failed
						Bridge		
						Low_Water_Crossing		

North Nelson Lake Unit Road

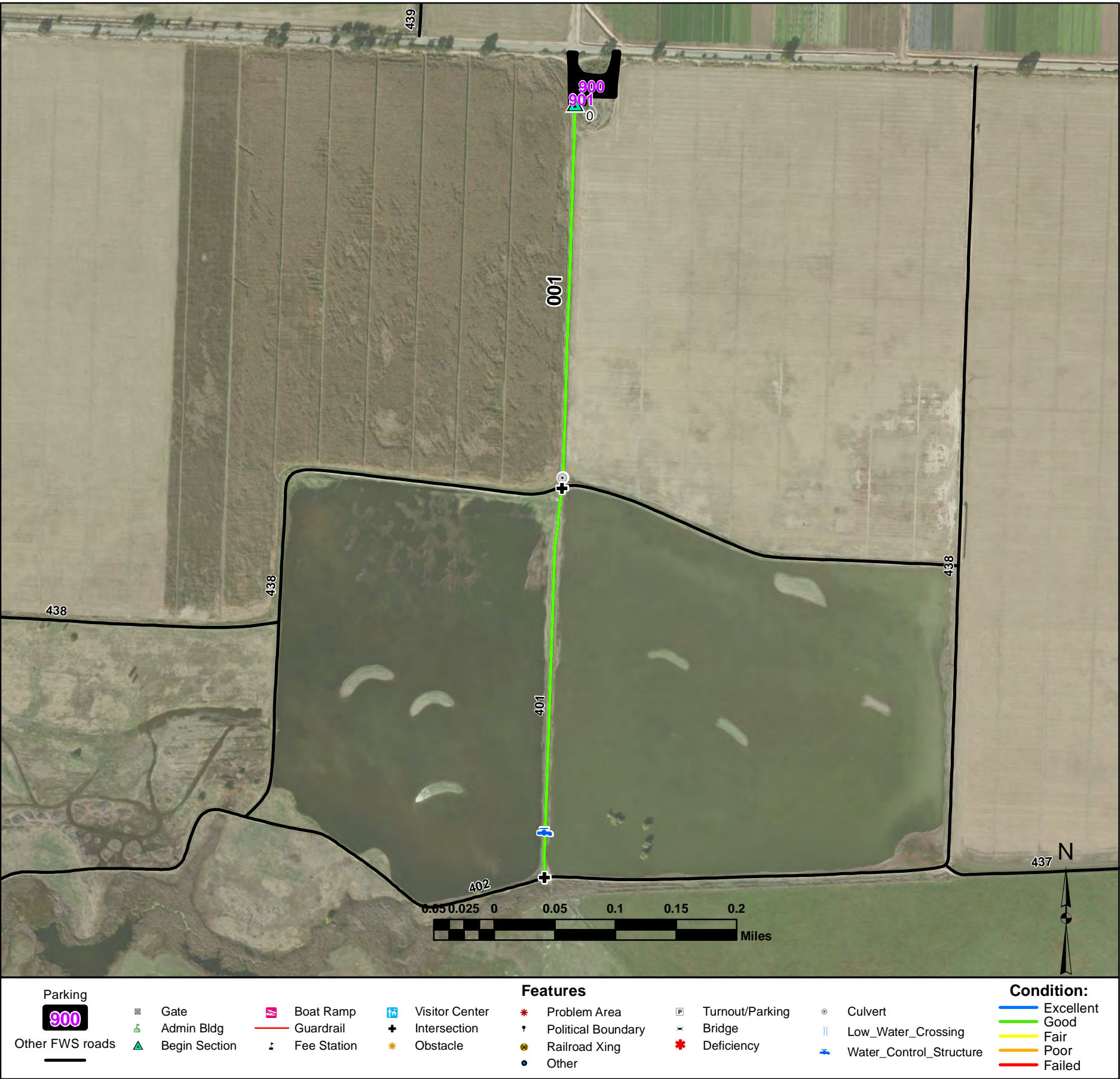
From North Gates Road to End of Route

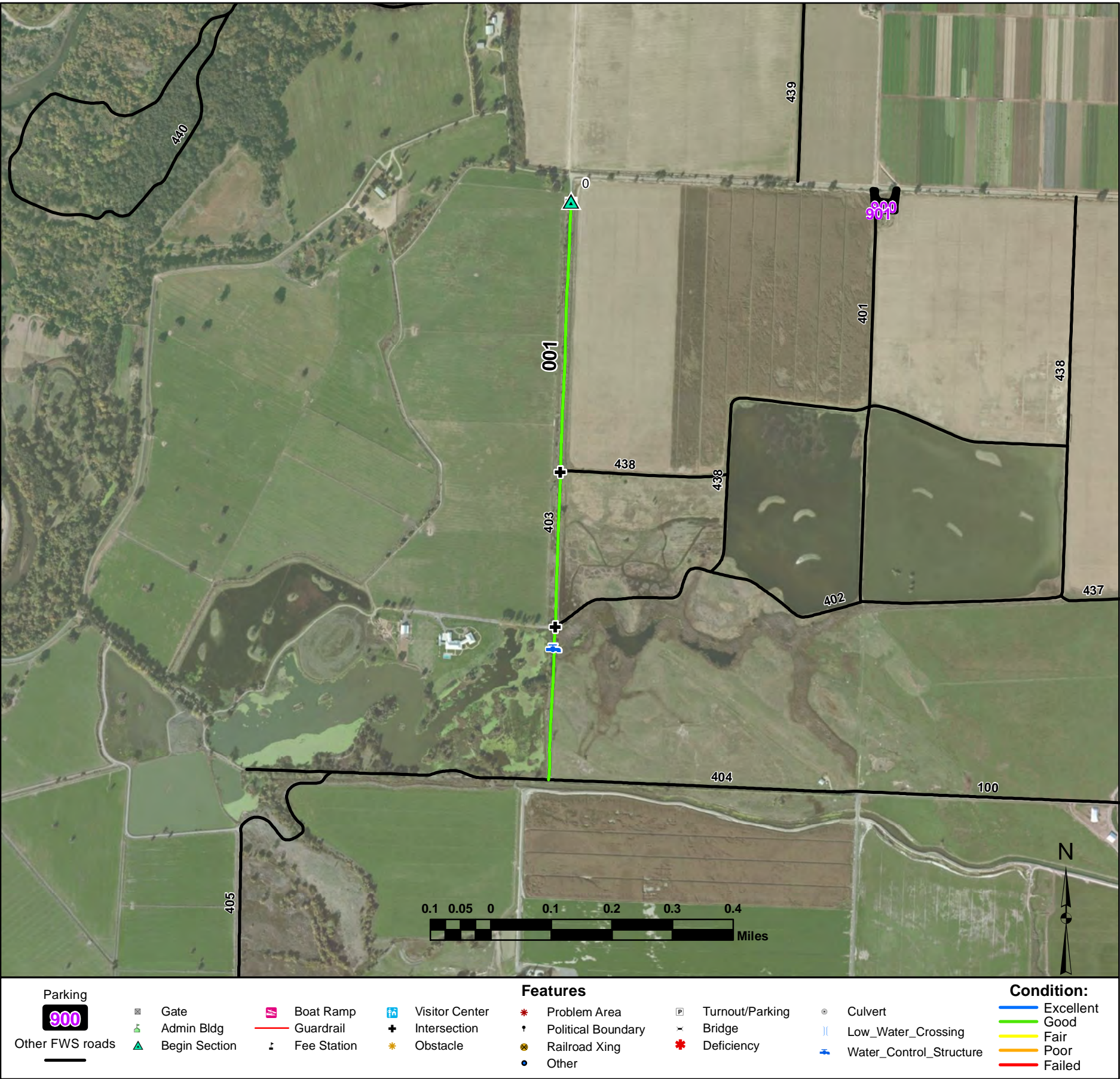
Route Number: 400

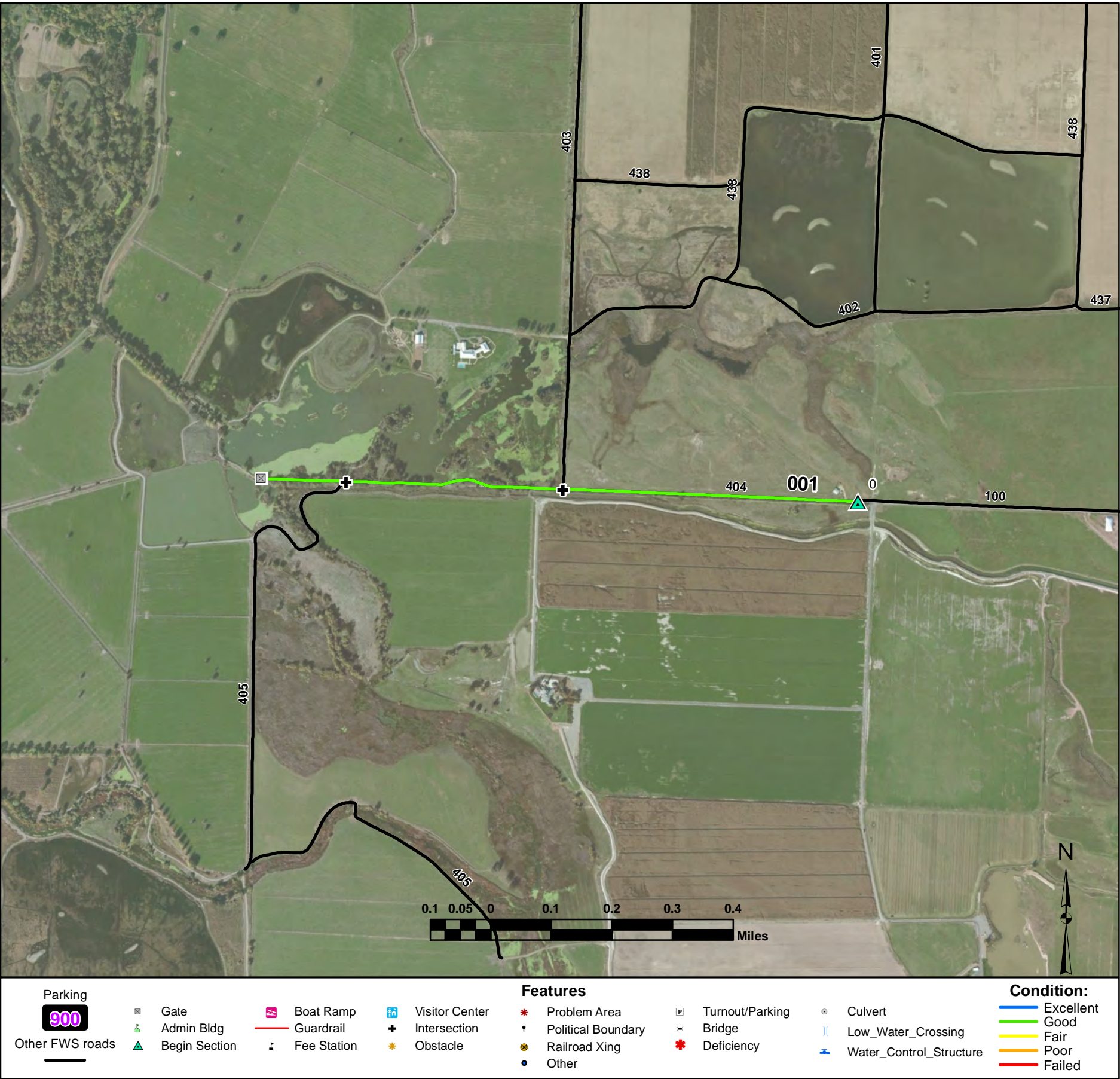
Total Route Mileage: 0.49

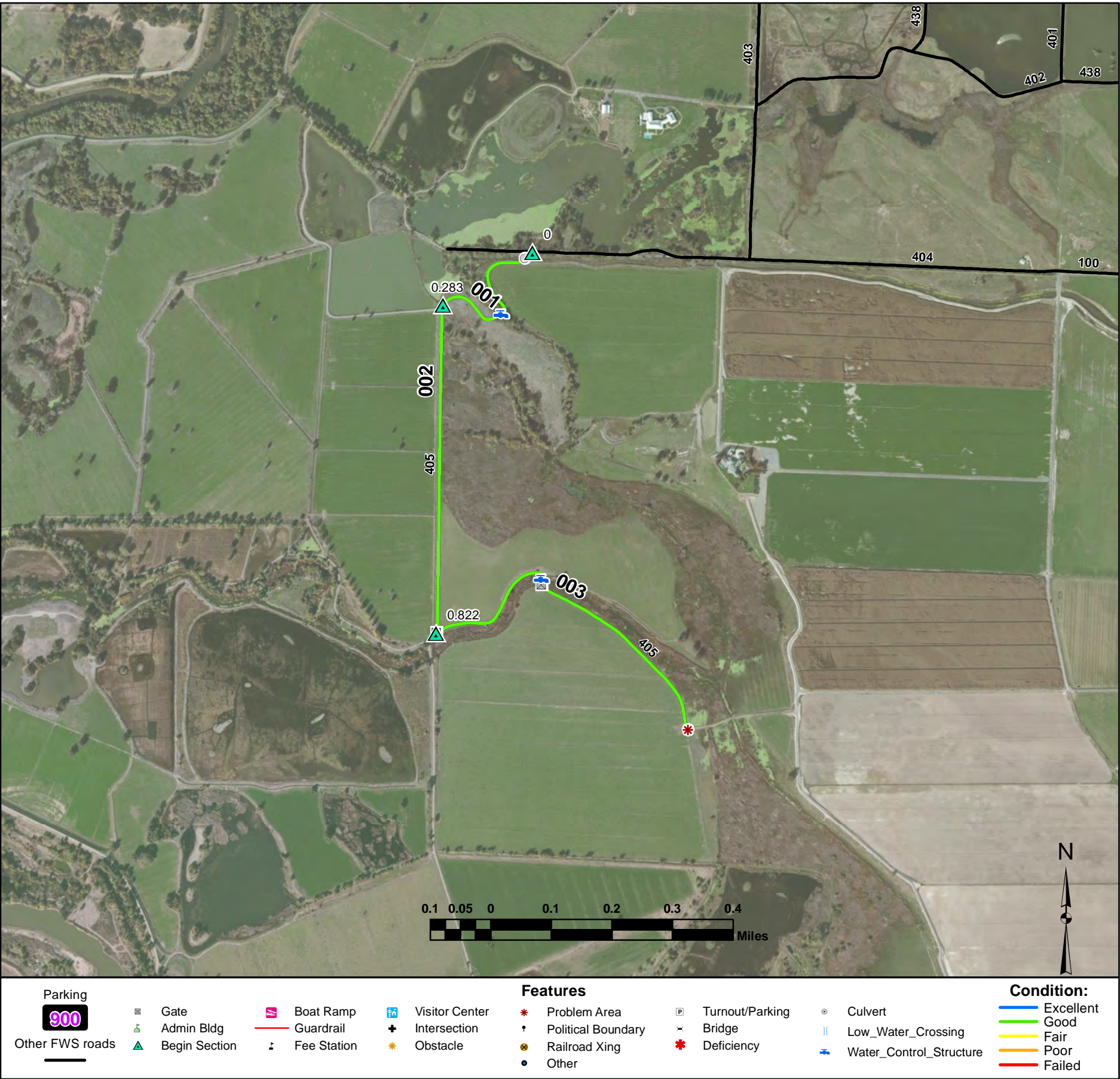
Asset Number	-				
Section Number	001				
Section Length (miles)	0.49				
Inspection Date	01-23-2012				
Surface Type	Native				
Number of Lanes	1				
Roadway Width (feet)	12				
Condition	Fair				
Remaining Service Life (years)	4				
Estimated Cost to Repair	\$1,300				
Current Replacement Value	\$212,000				

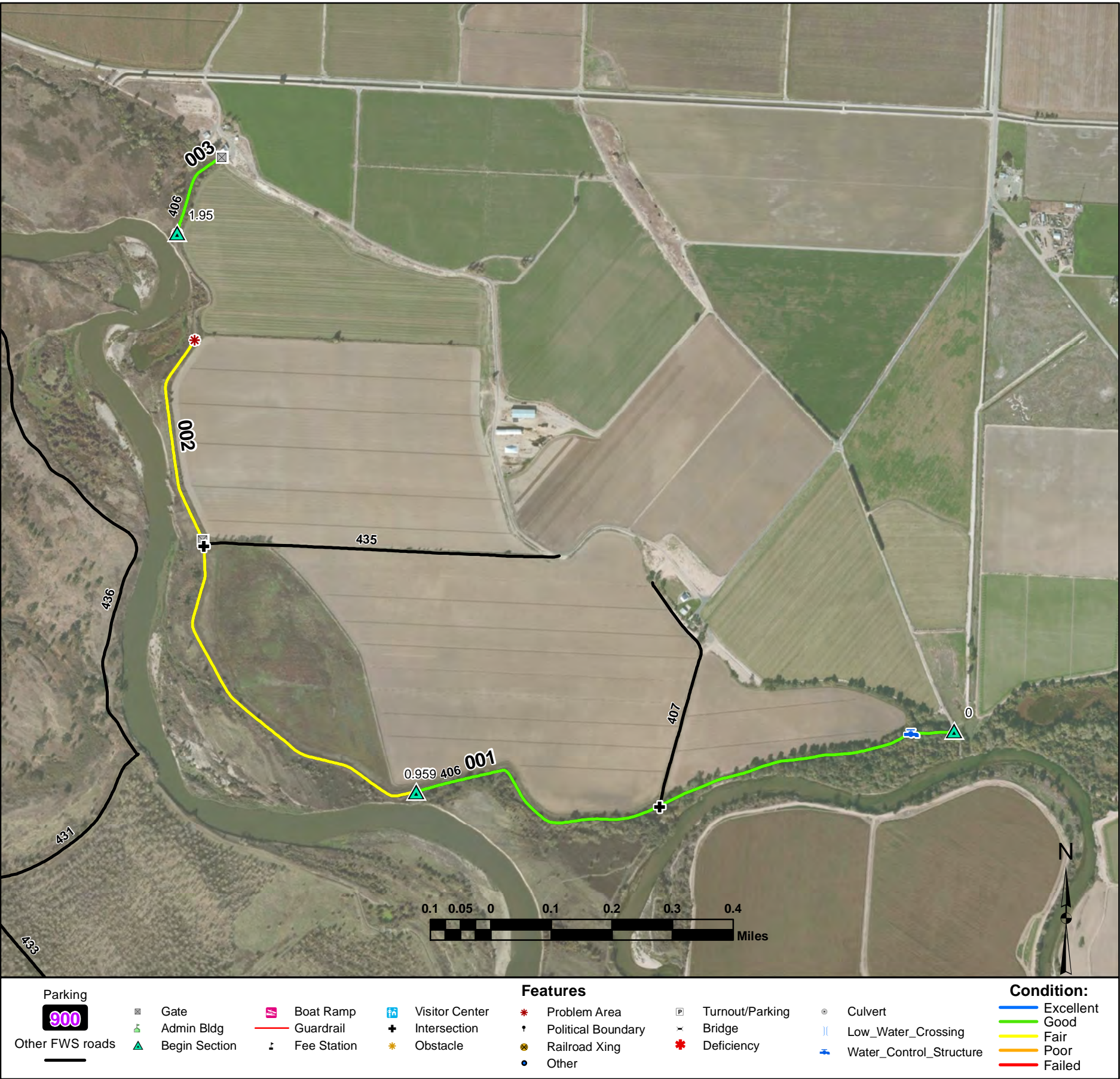
Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section Gate Gate	001-0.0 001-0.0 001-0.0						

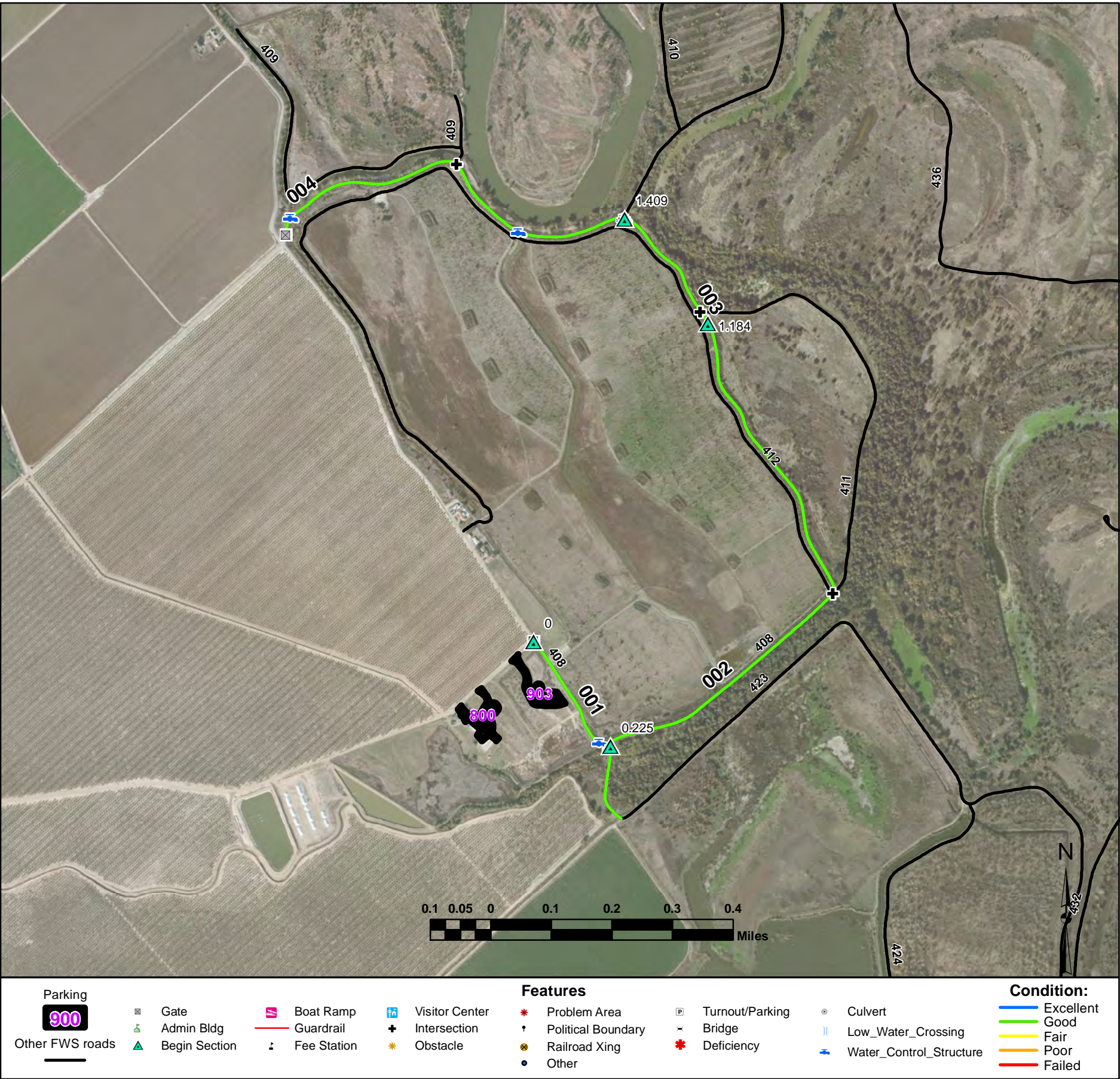


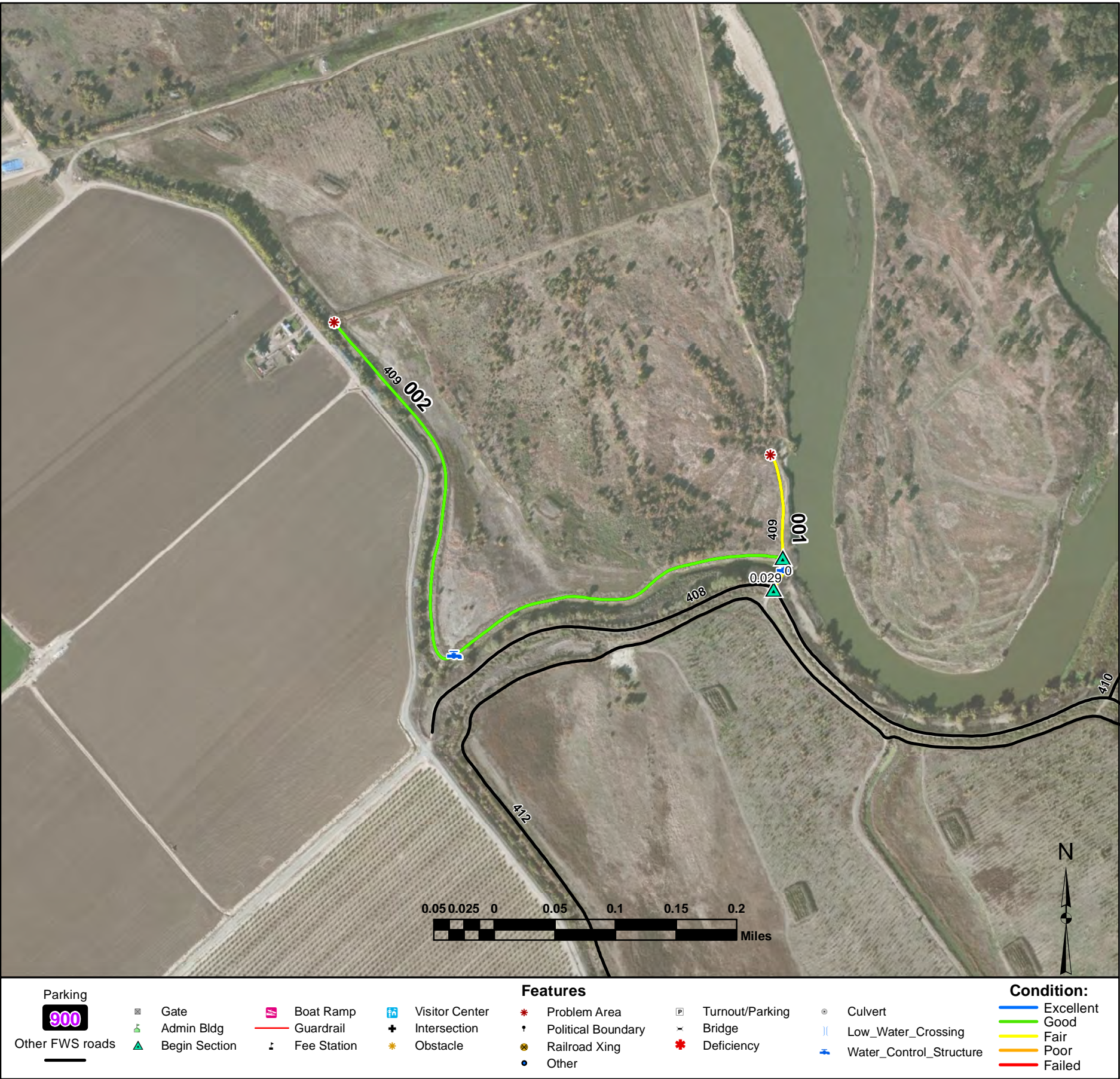












North Vierra Dirt Road

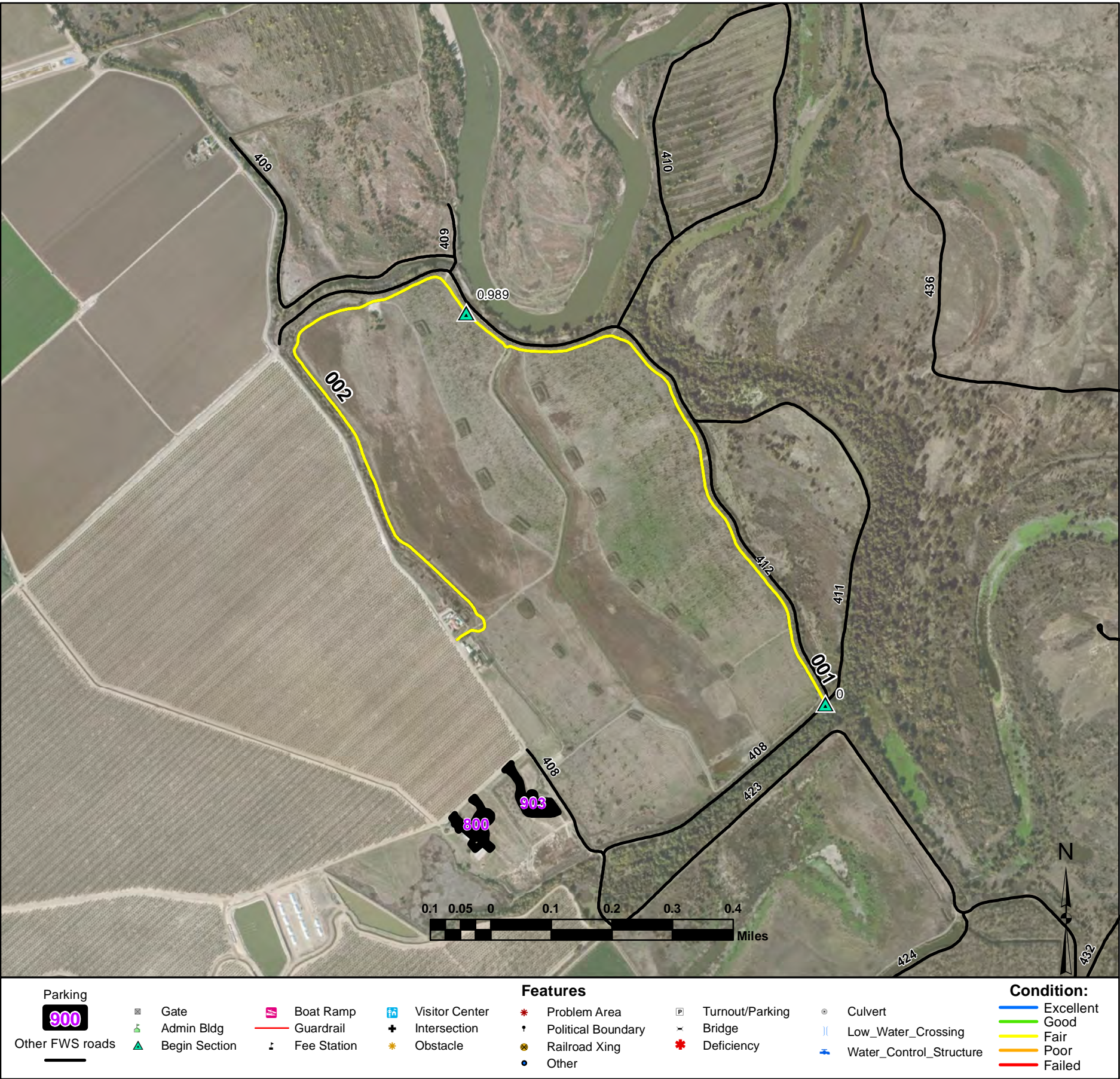
From Vierra Dirt Road (Route 408) to End of Route

Route Number: 409

Total Route Mileage: 0.73

Asset Number	10048314	10048314			
Section Number	001	002			
Section Length (miles)	0.12	0.62			
Inspection Date	01-23-2012	01-23-2012			
Surface Type	Native	Native			
Number of Lanes	1	1			
Roadway Width (feet)	12	12			
Condition	Fair	Good			
Remaining Service Life (years)	3	7			
Estimated Cost to Repair	\$300	\$1,300			
Current Replacement Value	\$51,900	\$268,200			

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Water Control Structure	001-0.02						
Problem Area	001-0.12						
Begin Section	002-0.03						
Water Control Structure	002-0.34						
Problem Area	002-0.65						



South Vierra Dirt Road

From Vierra Levee Road (Route 408) to Pelican Road

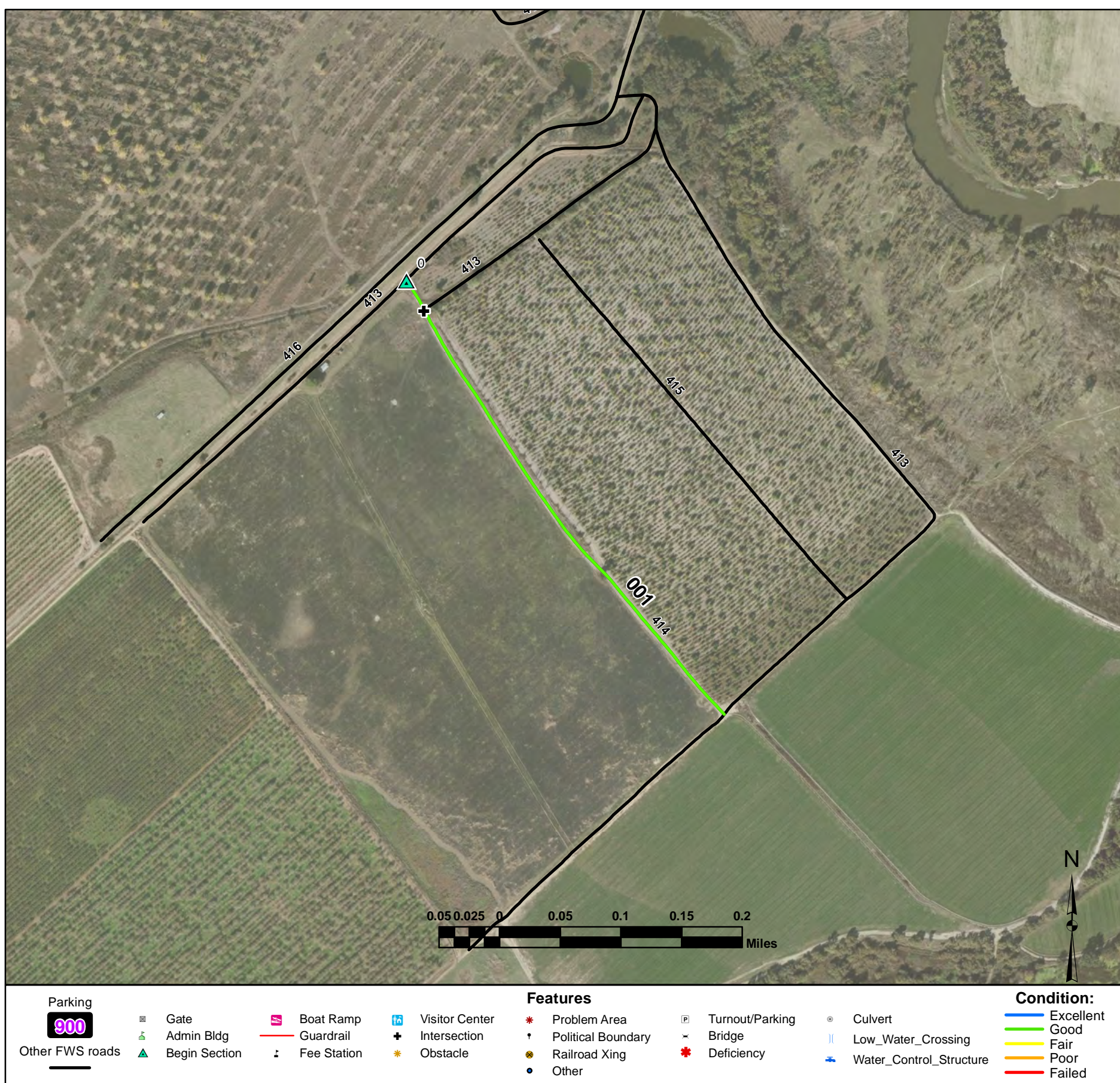
Route Number: 412

Total Route Mileage: 1.96

Asset Number	10048314	10048314			
Section Number	001	002			
Section Length (miles)	0.99	0.97			
Inspection Date	01-23-2012	01-23-2012			
Surface Type	Native	Native			
Number of Lanes	1	1			
Roadway Width (feet)	12	12			
Condition	Fair	Fair			
Remaining Service Life (years)	4	4			
Estimated Cost to Repair	\$2,600	\$2,500			
Current Replacement Value	\$428,300	\$419,600			

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Begin Section	002-0.99						





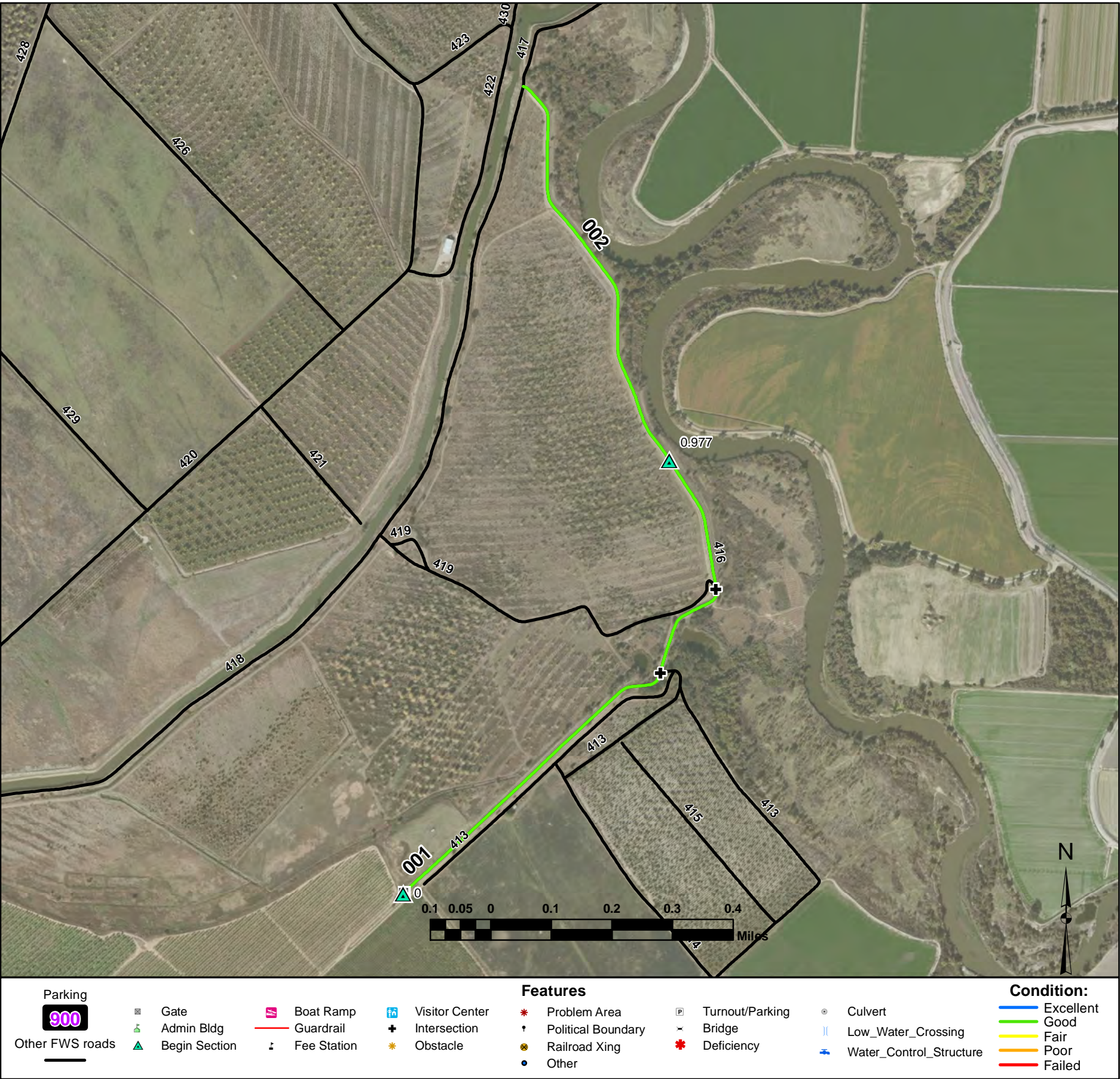


From Arambel Alfalfa Field Road (Route 413) to Arambel Alfalfa Field Road (Route 413)

Route Number:415

Total Route Mileage: 0.39

Features Begin Section Problem Area	Mile Post 001-0.0 001-0.39	Features	Mile Post	Features	Mile Post	Features	Mile Post
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Page Lake Perimeter Road

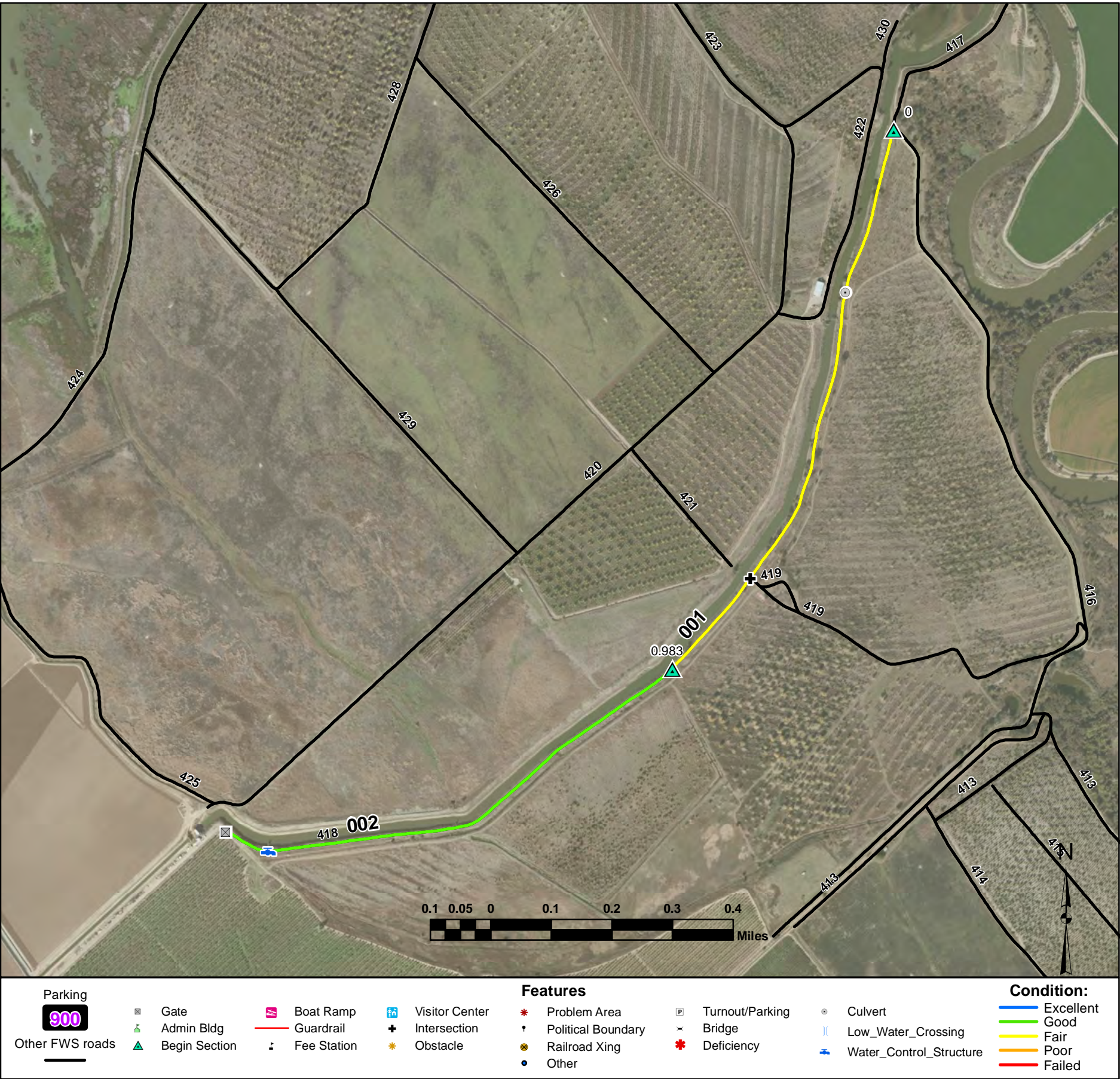
From 0.9 Miles North East of River Road to Lara Upper East Access Road (Route 417)

Route Number: 416

Total Route Mileage: 1.67

Asset Number	10000972	10000972			
Section Number	001	002			
Section Length (miles)	0.98	0.69			
Inspection Date	01-24-2012	01-24-2012			
Surface Type	Gravel	Gravel			
Number of Lanes	1	1			
Roadway Width (feet)	12	12			
Condition	Good	Good			
Remaining Service Life (years)	7	7			
Estimated Cost to Repair	\$1,900	\$1,400			
Current Replacement Value	\$819,500	\$577,000			

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Gate	001-0.0						
Intersection	001-0.59						
Intersection	001-0.76						
Begin Section	002-0.98						



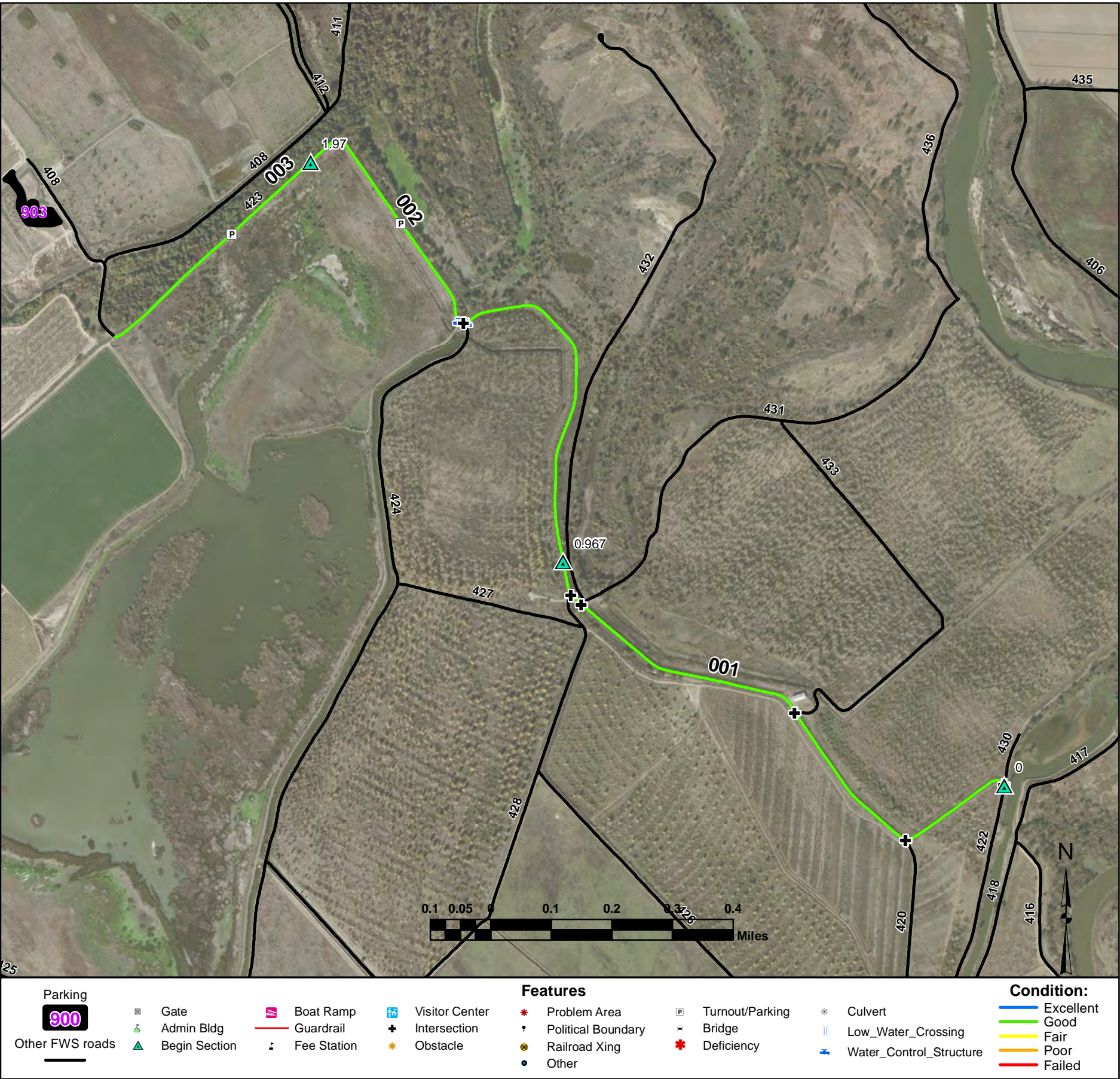
Hagemann Unit Farm Field 4 Road

From West Stanislaus Road Extension (Route 420) to End of Route

Route Number:421

Total Route Mileage: 0.25

Features Begin Section	Mile Post 001-0.0	Features	Mile Post	Features	Mile Post	Features	Mile Post
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Hagemann Flood Levee Road

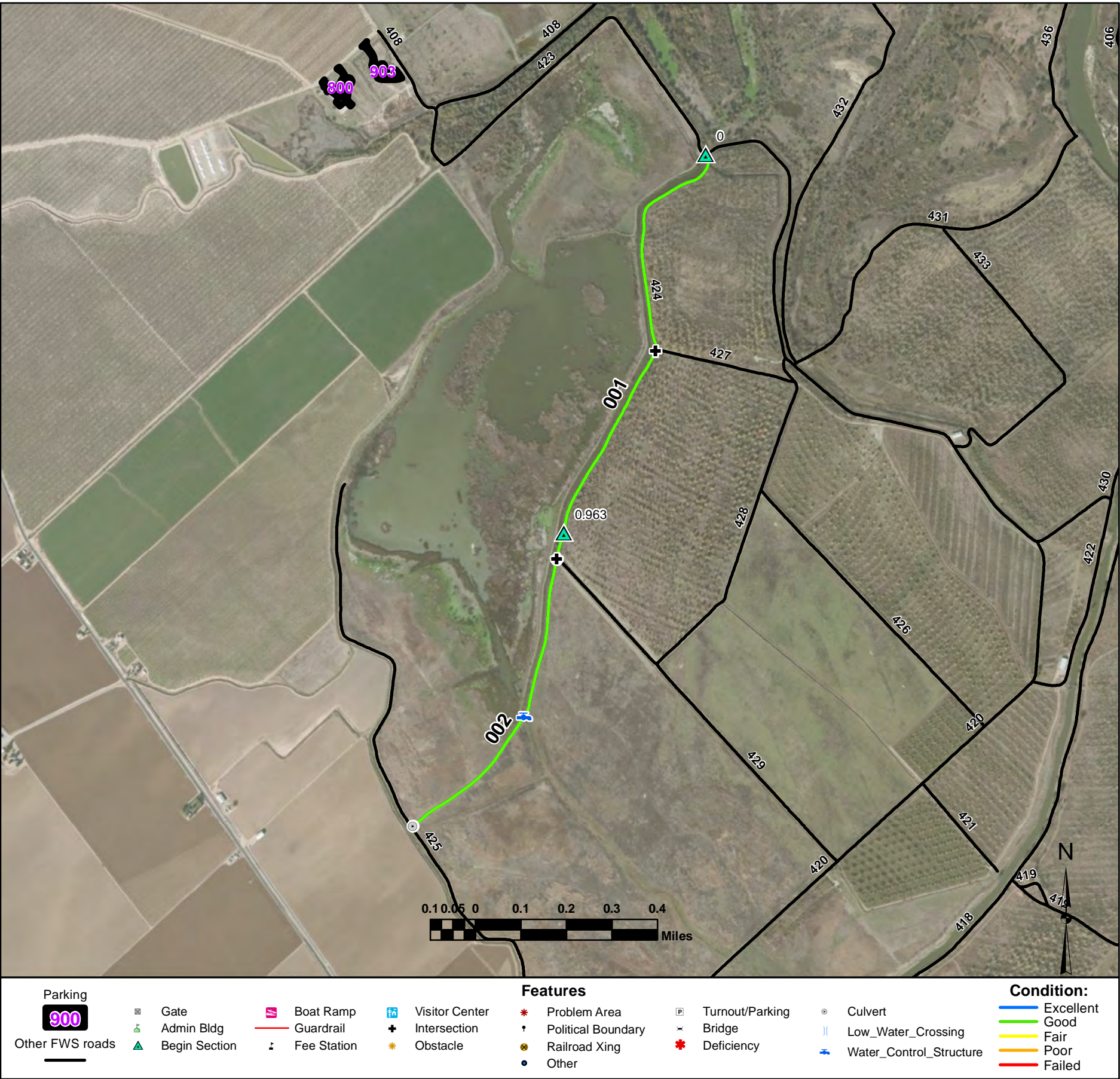
From Hagemann Unit Big Barn Road (Route 422) to Vierra Levee Road (Route 408)

Route Number: 423

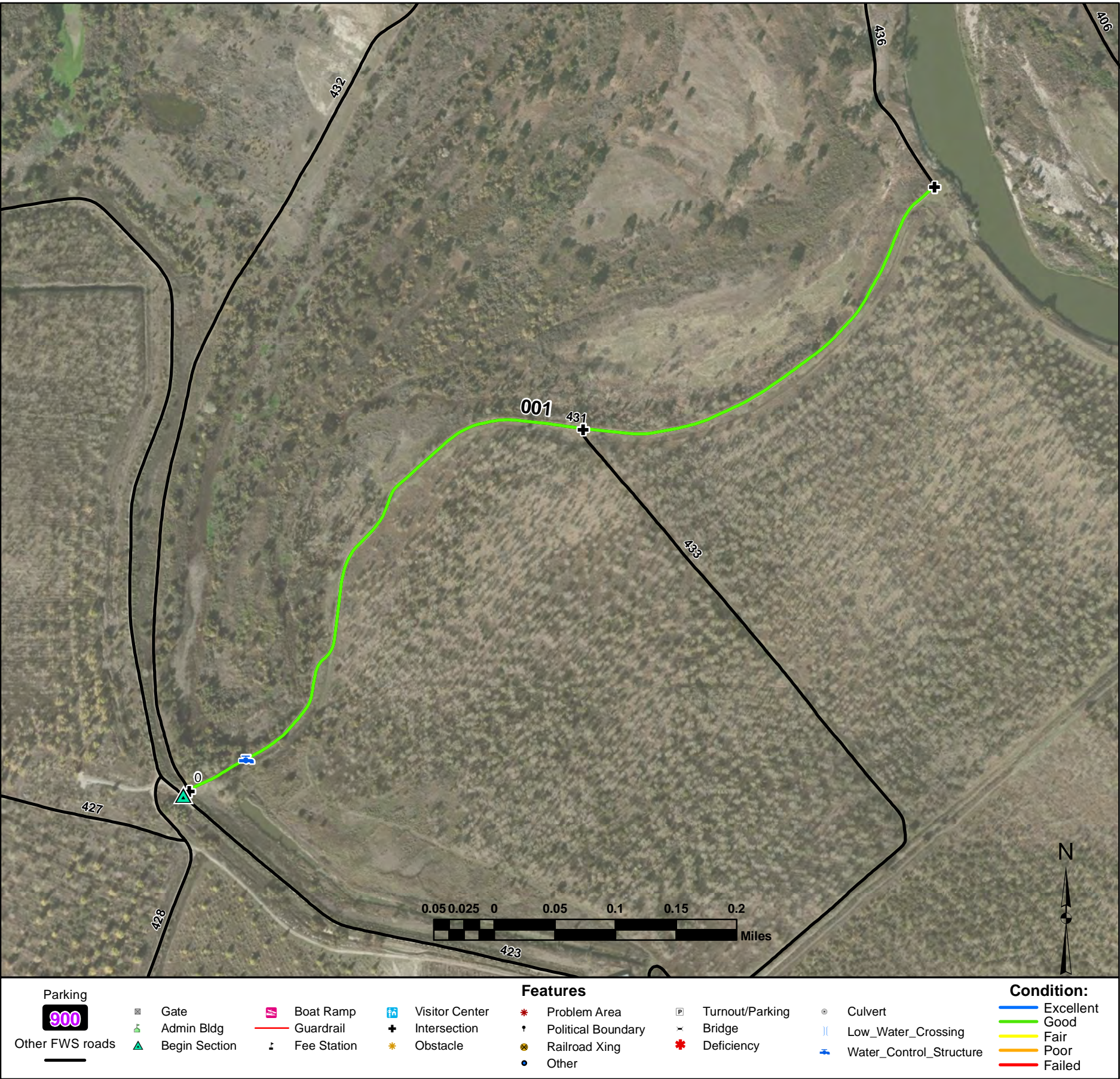
Total Route Mileage: 2.40

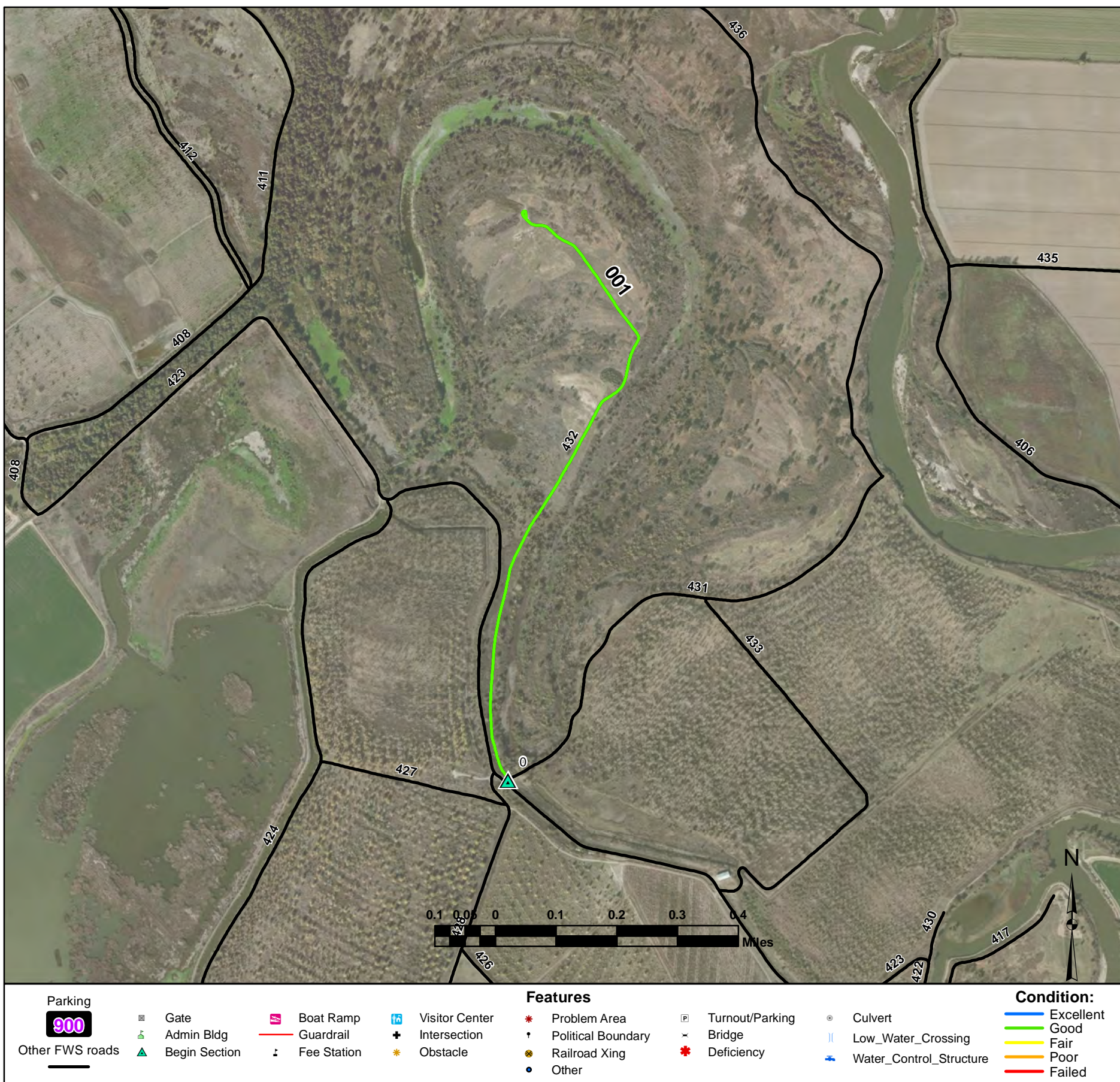
Asset Number	10000973	10000973	10000973		
Section Number	001	002	003		
Section Length (miles)	0.97	1.00	0.43		
Inspection Date	01-24-2012	01-24-2012	01-24-2012		
Surface Type	Gravel	Gravel	Gravel		
Number of Lanes	1	1	1		
Roadway Width (feet)	12	12	12		
Condition	Good	Good	Good		
Remaining Service Life (years)	6	6	7		
Estimated Cost to Repair	\$1,900	\$2,000	\$800		
Current Replacement Value	\$811,200	\$836,300	\$359,600		

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Intersection	001-0.0						
Intersection	001-0.2						
Intersection	001-0.47						
Intersection	001-0.89						
Intersection	001-0.92						
Begin Section	002-0.97						
Water Control Structure	002-1.53						
Intersection	002-1.54						
Water Control Structure	002-1.54						
Turnout/Parking	002-1.73						
Begin Section	003-1.97						
Turnout/Parking	003-2.15						









Hagemann Peninsula Road

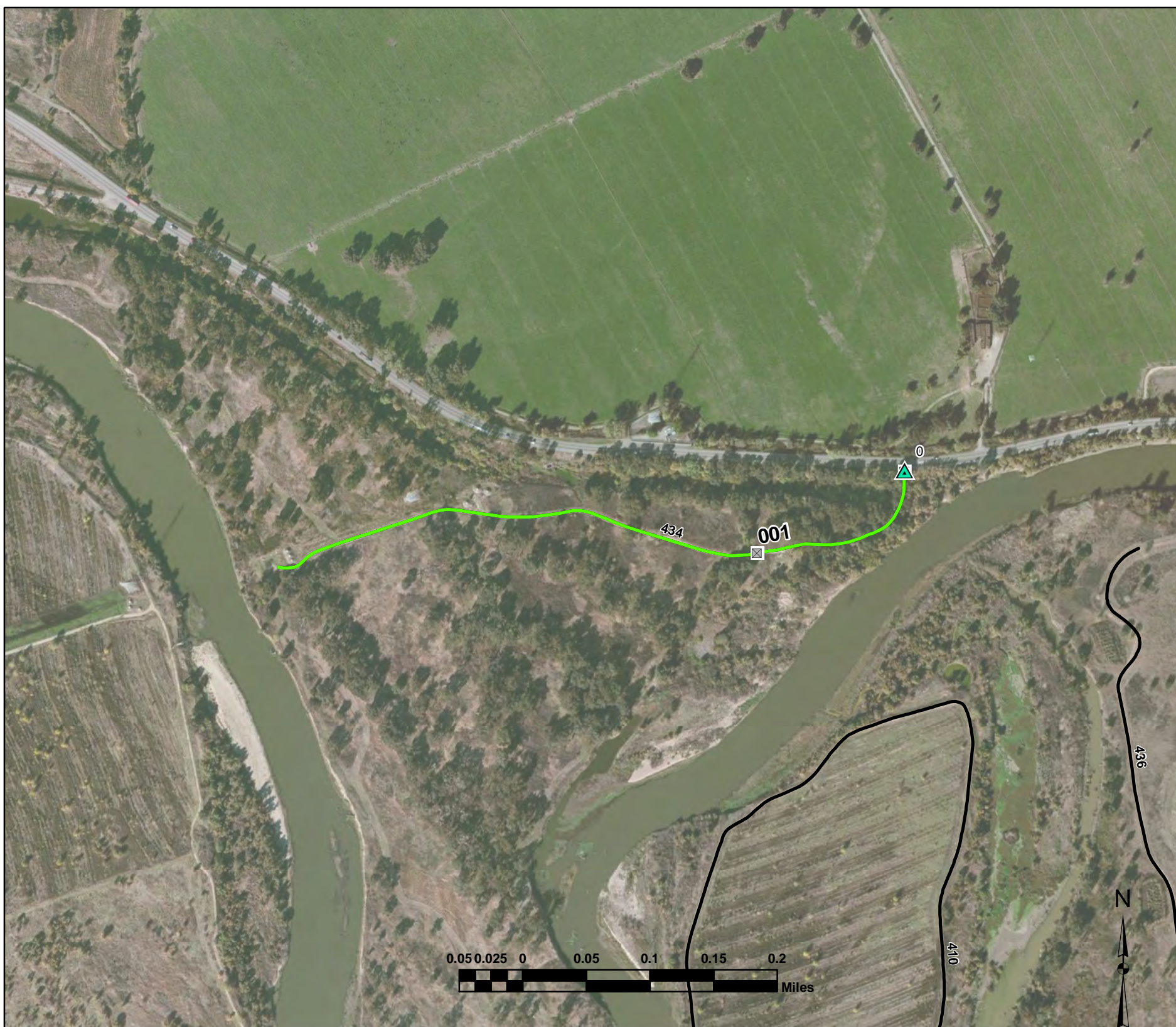
From Hagemann South Christman Road (Route 431) to End of Route

Route Number:432

Total Route Mileage: 1.10

Asset Number	10048316				
Section Number	001				
Section Length (miles)	1.10				
Inspection Date	01-24-2012				
Surface Type	Primitive				
Number of Lanes	1				
Roadway Width (feet)	10				
Condition	Good				
Remaining Service Life (years)	5				
Estimated Cost to Repair	\$600				
Current Replacement Value	\$0				

Features Begin Section	Mile Post 001-0.0	Features	Mile Post	Features	Mile Post	Features	Mile Post
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Parking

900

Other FWS roads

Gate

Admin Bldg

Begin Section

Boat Ramp

Guardrail

Fee Station

Visitor Center

Intersection

Obstacle

Problem Area

Political Boundary

Railroad Xing

Other

Turnout/Parking

Bridge

Deficiency

Culvert

Low_Water_Crossing

Water_Control_Structure

Excellent

Good

Fair

Poor

Failed

Gardner's Cove Road

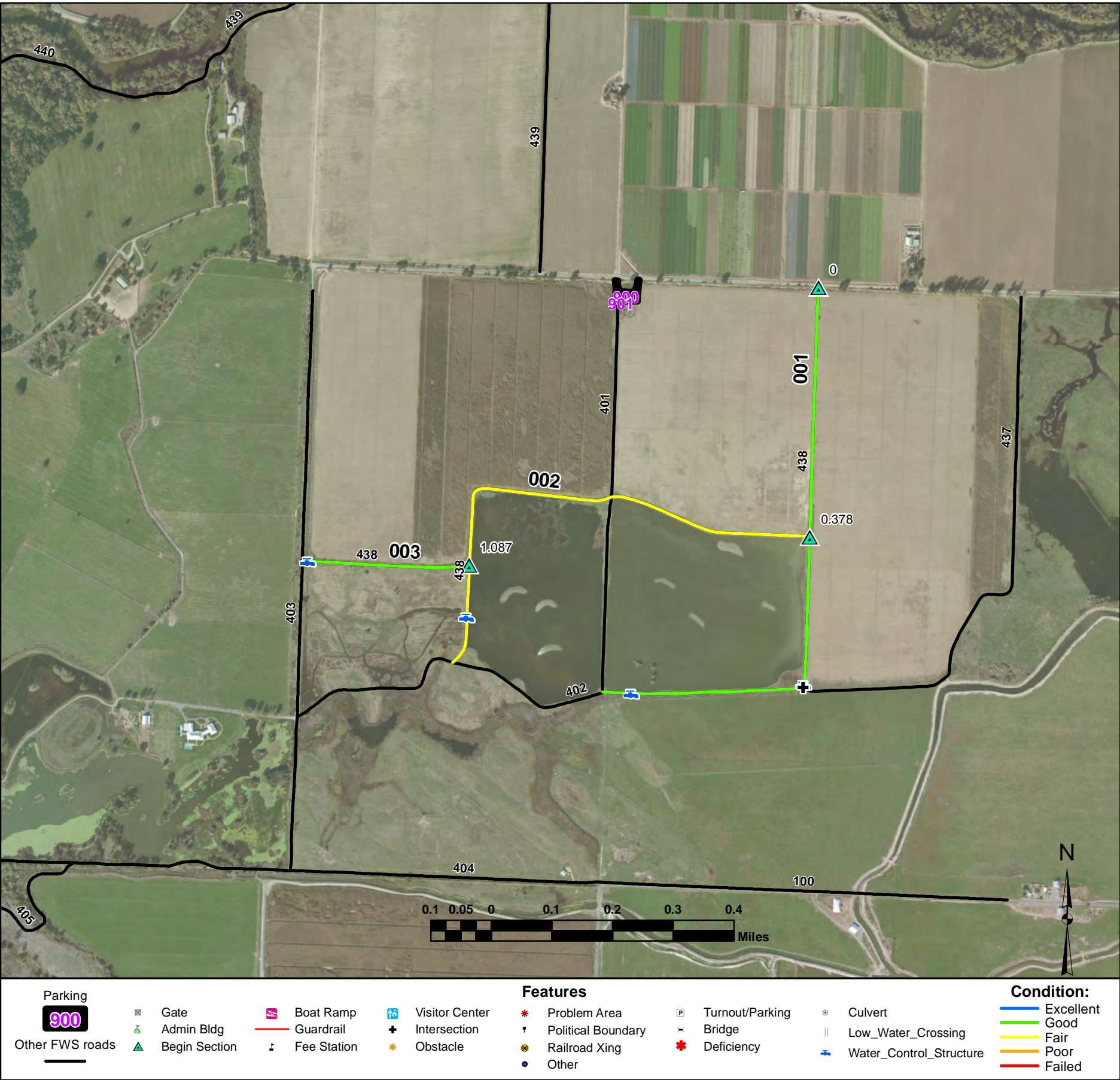
From State Highway 132 to End of Route

Route Number: 434

Total Route Mileage: 0.54

Asset Number	10048312				
Section Number	001				
Section Length (miles)	0.54				
Inspection Date	01-23-2012				
Surface Type	Native				
Number of Lanes	1				
Roadway Width (feet)	12				
Condition	Good				
Remaining Service Life (years)	5				
Estimated Cost to Repair	\$1,100				
Current Replacement Value	\$233,600				

Features Begin Section Gate Gate	Mile Post 001-0.0 001-0.0 001-0.15	Features	Mile Post	Features	Mile Post	Features	Mile Post
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Goose and Paige Lake Access Road

From Beckswith Road to Paige Lake Road (Route 403)

Route Number: 438

Total Route Mileage: 2.12

Asset Number	-	-	-		
Section Number	001	002	003		
Section Length (miles)	0.99	0.86	0.28		
Inspection Date	04-11-2012	04-11-2012	04-11-2012		
Surface Type	Native	Native	Native		
Number of Lanes	1	1	1		
Roadway Width (feet)	12	12	12		
Condition	Good	Fair	Good		
Remaining Service Life (years)	7	3	5		
Estimated Cost to Repair	\$2,100	\$2,300	\$600		
Current Replacement Value	\$428,300	\$372,000	\$121,100		

Features	Mile Post	Features	Mile Post	Features	Mile Post	Features	Mile Post
Begin Section	001-0.0						
Water Control Structure	001-0.6						
Intersection	001-0.61						
Water Control Structure	001-0.93						
Begin Section	002-0.38						
Water Control Structure	002-1.16						
Begin Section	003-1.09						
Water Control Structure	003-1.35						



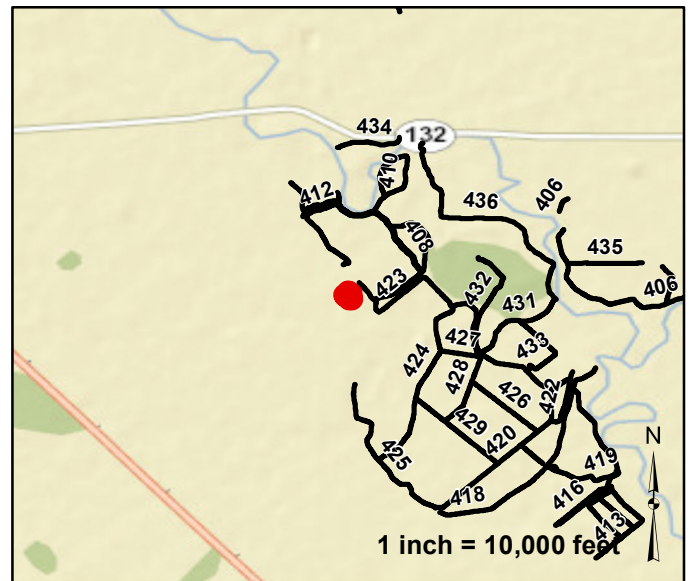


Route Number:800

Shop Parking

From Dairy Road

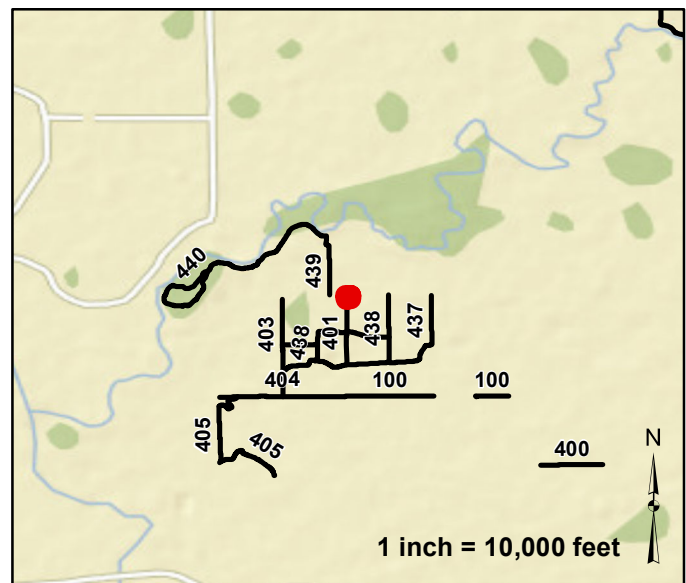
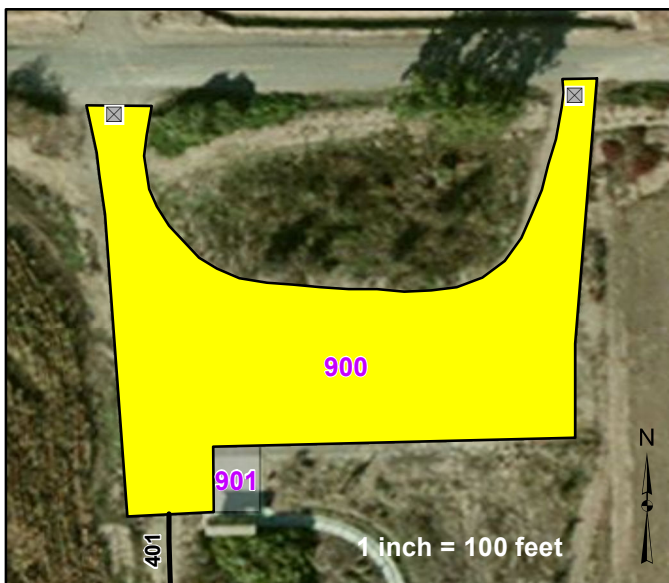
Asset Number	Area (Sq Ft)	Condition	Surface Type	Cost to Improve	Inspection Date	Current Replacement Value
-	46960	Good	Gravel	\$7,800	04-11-2012	\$256,000



Parking		Features				Condition:	
Other FWS roads	Admin Bldg	Guardrail	Other	Low_Water_Crossing			
	Begin Section	Fee Station	Problem Area	Water_Control_Structure			

Route Number:900
Beckwith Overlook Parking
From Beckwith Road

Asset Number	Area (Sq Ft)	Condition	Surface Type	Cost to Improve	Inspection Date	Current Replacement Value
10048300	21629	Fair	Gravel	\$6,900	01-23-2012	\$129,800



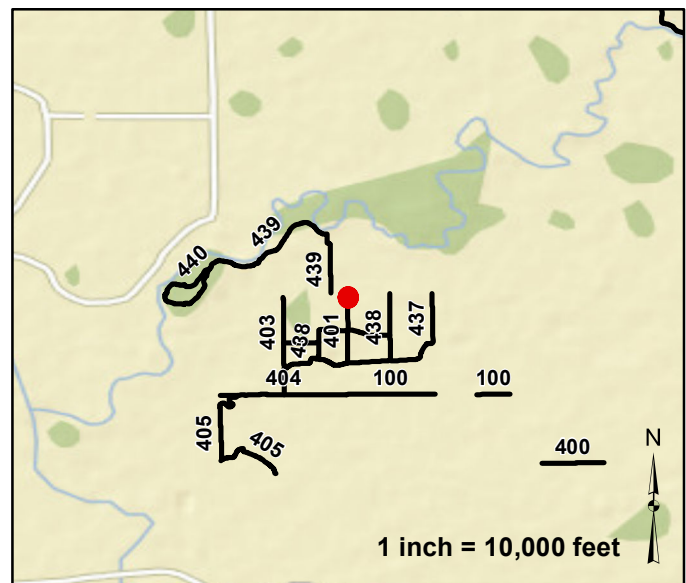
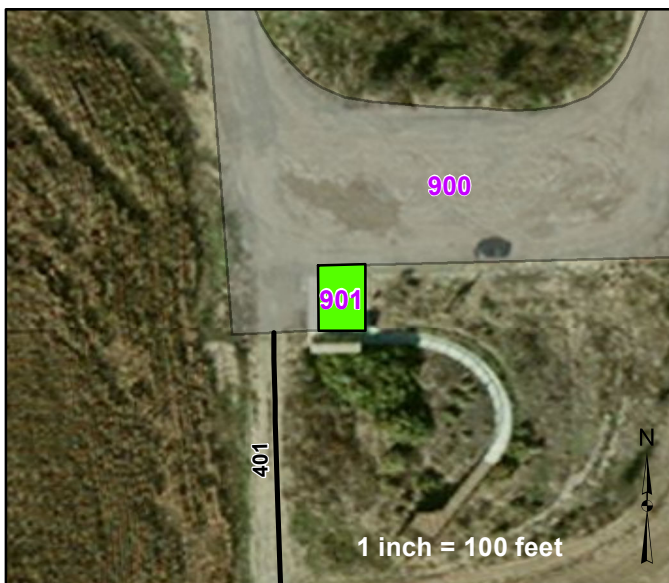
Parking		Features				Condition:	
	Gate		Boat Ramp		Visitor Center		Excellent
	Admin Bldg		Guardrail		Other		Good
	Begin Section		Fee Station		Problem Area		Fair
					Culvert		Poor
					Low_Water_Crossing		Failed
					Water_Control_Structure		

Route Number:901

Beckwith Overlook Handicapped Parking

From Beckwith Road

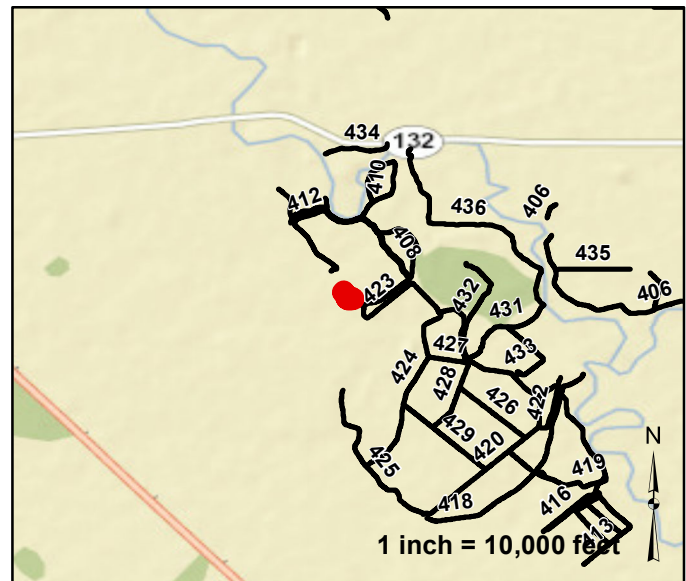
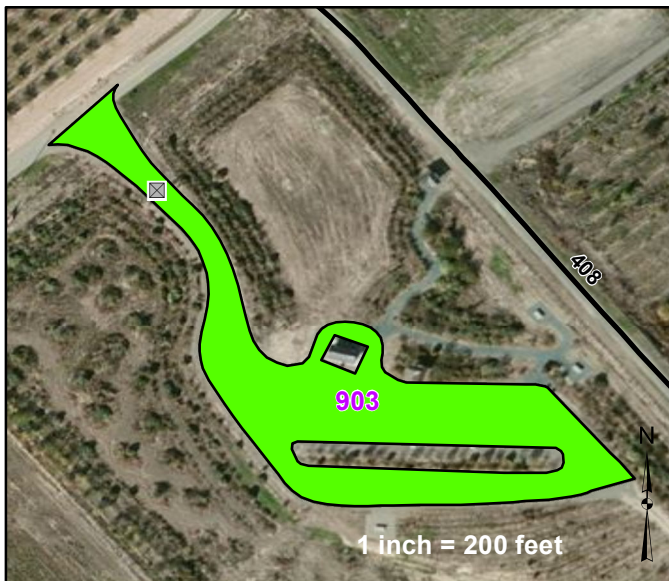
Asset Number	Area (Sq Ft)	Condition	Surface Type	Cost to Improve	Inspection Date	Current Replacement Value
-	664	Good	Concrete	\$100	01-23-2012	\$8,900



Parking		Features				Condition:	
	Gate		Boat Ramp		Visitor Center		Excellent
	Admin Bldg		Guardrail		Other		Good
	Begin Section		Fee Station		Problem Area		Fair
	Other FWS roads		Culvert		Low_Water_Crossing		Poor
			Water_Control_Structure				Failed

Route Number:903
Pelican Nature Trail Parking
From Dairy Road

Asset Number	Area (Sq Ft)	Condition	Surface Type	Cost to Improve	Inspection Date	Current Replacement Value
-	42729	Good	Gravel	\$7,800	01-23-2012	\$256,000



Parking		Features				Condition:	
	Gate		Boat Ramp		Visitor Center		Excellent
	Admin Bldg		Guardrail		Other		Good
	Begin Section		Fee Station		Problem Area		Fair
					Culvert		Poor
					Low_Water_Crossing		Failed
					Water_Control_Structure		

Rte #	Milepost	NBIS #	Sufficiency Rating	Functionally Obsolete	Structurally Deficient
No bridges to report					

ROUTE: 100

Features Photographs



Photo: SAJO_C4_0352 Route: 100-001-0.0
Begin Section Property boundary is at midline and maintenance is done by neighbor and county



Photo: SAJO_C4_0353 Route: 100-001-0.45
Concrete Culvert 30ft long 60in dia. 1ft deep
Asset# 10048357



Photo: SAJO_C4_0354 Route: 100-001-0.45
Concrete Culvert 30ft long 60in dia. 1ft deep
Asset# 10048357



Photo: SAJO_C4_0355 Route: 100-002-0.7
Begin Section



Photo: SAJO_C4_0356 Route: 100-002-0.73 Concrete WCS
Flashboard Riser 100ft long 24in dia. 4ft deep
Asset# NA



Photo: SAJO_C4_0357 Route: 100-002-0.73 Concrete WCS
Flashboard Riser 100ft long 24in dia. 4ft deep
Asset# NA

ROUTE: 400

Features Photographs



Photo: SAJO_C4_0349 Route: 400-001-0.0
Begin Section



Photo: SAJO_C4_0350 Route: 400-001-0.0
Metal Open Rail Gate
Asset# NA



Photo: SAJO_C4_0351 Route: 400-001-0.0
Metal Cattle Guard
Asset# NA

ROUTE: 401

Features Photographs



Photo: SAJO_C4_0366 Route: 401-001-0.0
Begin Section



Photo: SAJO_C4_0365 Route: 401-001-0.0
Metal Open Rail Gate
Asset# 10048353



Photo: SAJO_C4_0367 Route: 401-001-0.31
Plastic Culvert 25ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0368 Route: 401-001-0.31
Plastic Culvert 25ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0370 Route: 401-001-0.6
Plastic WCS Flashboard Riser 25ft long 24in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0371 Route: 401-001-0.6
Plastic WCS Flashboard Riser 25ft long 24in dia. 1ft deep
Asset# NA 8-003

ROUTE: 402

Features Photographs



Photo: SAJO_C4_0372 Route: 402-001-0.0
Begin Section



Photo: SAJO_C4_0373 Route: 402-001-0.11
Plastic WCS Flashboard Riser 25ft long 24in dia. 4ft deep
Asset# NA



Photo: SAJO_C4_0374 Route: 402-001-0.11
Plastic WCS Flashboard Riser 25ft long 24in dia. 4ft deep
Asset# NA



Photo: SAJO_C4_0375 Route: 402-001-0.55
Plastic WCS Flashboard Riser 25ft long 24in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0376 Route: 402-001-0.55
Plastic WCS Flashboard Riser 25ft long 24in dia. 3ft deep
Asset# NA

ROUTE: 403

Features Photographs



Photo: SAJO_C4_0377 Route: 403-001-0.0
Begin Section



Photo: SAJO_C4_0378 Route: 403-001-0.0
Metal Open Rail Gate Custom gate
Asset# 10048353



Photo: SAJO_C4_0379 Route: 403-001-0.74
Plastic WCS Drop Pipe 60ft long 24in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0380 Route: 403-001-0.74
Plastic WCS Drop Pipe 60ft long 24in dia. 3ft deep
Asset# NA

ROUTE: 404

Features Photographs



Photo: SAJO_C4_0381 Route: 404-001-0.0
Begin Section



Photo: SAJO_C4_0382 Route: 404-001-0.99
Metal Cattle Guard
Asset# NA

ROUTE: 405

Features Photographs



Photo: SAJO_C4_0383 Route: 405-001-0.0
Begin Section



Photo: SAJO_C4_0384 Route: 405-001-0.02
Plastic Culvert 60ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0385 Route: 405-001-0.02
Plastic Culvert 60ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0388 Route: 405-001-0.16
Metal WCS Flashboard Riser 50ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0389 Route: 405-001-0.16
Metal WCS Flashboard Riser 50ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0390 Route: 405-002-0.28
Begin Section

ROUTE: 405

Features Photographs



Photo: SAJO_C4_0391 Route: 405-003-0.82
Begin Section



Photo: SAJO_C4_0392 Route: 405-003-0.82
Metal Gate Barbed Wire
Asset# NA



Photo: SAJO_C4_0393 Route: 405-003-1.05
Metal WCS Flashboard Riser 40ft long 48in dia. 7ft deep
Asset# NA



Photo: SAJO_C4_0394 Route: 405-003-1.05
Metal WCS Flashboard Riser 40ft long 48in dia. 7ft deep
Asset# NA



Photo: SAJO_C4_0395 Route: 405-003-1.06
Metal Gate Barbed Wire
Asset# NA



Photo: SAJO_C4_0396 Route: 405-003-1.41
Problem Area Road too muddy to drive

ROUTE: 406

Features Photographs



Photo: SAJO_C4_0397 Route: 406-001-0.0
Begin Section



Photo: SAJO_C4_0398 Route: 406-001-0.07
Concrete WCS Screw Gate 60ft long 36in dia. 10ft deep
Asset# NA



Photo: SAJO_C4_0399 Route: 406-001-0.07
Concrete WCS Screw Gate 60ft long 36in dia. 10ft deep
Asset# NA



Photo: SAJO_C4_0400 Route: 406-002-0.96
Begin Section



Photo: SAJO_C4_0401 Route: 406-002-1.61
Metal Cattle Guard
Asset# NA



Photo: SAJO_C4_0402 Route: 406-002-1.95
Problem Area At refuge request road too muddy to drive
8-009

ROUTE: 406

Features Photographs



Photo: SAJO_C4_0409 Route: 406-003-1.95
Begin Section Not driven at refuge request due to soft mud



Photo: SAJO_C4_0410 Route: 406-003-2.1
Metal Open Rail Gate
Asset# NA

ROUTE: 407

Features Photographs



Photo: SAJO_C4_0403 Route: 407-001-0.0
Begin Section

ROUTE: 408

Features Photographs



Photo: SAJO_C4_0419 Route: 408-001-0.0
Begin Section



Photo: SAJO_C4_0420 Route: 408-001-0.0
Metal Open Rail Gate
Asset# 10000997



Photo: SAJO_C4_0421 Route: 408-001-0.2
Plastic WCS Screw Gate 50ft long 36in dia. 8ft deep
Asset# NA



Photo: SAJO_C4_0422 Route: 408-001-0.2
Plastic WCS Screw Gate 50ft long 36in dia. 8ft deep
Asset# NA



Photo: SAJO_C4_0423 Route: 408-001-0.23 Plastic WCS
Flap Gate/Full-Round Riser 80ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0424 Route: 408-001-0.23 Plastic WCS
Flap Gate/Full-Round Riser 80ft long 36in dia. 3ft deep
Asset# NA

ROUTE: 408

Features Photographs



Photo: SAJO_C4_0425 Route: 408-002-0.23
Begin Section



Photo: SAJO_C4_0426 Route: 408-003-1.18
Begin Section



Photo: SAJO_C4_0427 Route: 408-003-1.41
Metal WCS Screw Gate 100ft long 18in dia. 5ft deep
Asset# NA



Photo: SAJO_C4_0428 Route: 408-003-1.41
Metal WCS Screw Gate 100ft long 18in dia. 5ft deep
Asset# NA



Photo: SAJO_C4_0429 Route: 408-004-1.41
Begin Section



Photo: SAJO_C4_0430 Route: 408-004-1.6
Metal WCS Other 100ft long 24in dia. 6ft deep
Pump station
Asset# NA

ROUTE: 408

Features Photographs



Photo: SAJO_C4_0431 Route: 408-004-2.05
Metal WCS Other 100ft long 18in dia. 5ft deep
Pump station
Asset# NA



Photo: SAJO_C4_0432 Route: 408-004-2.08
Metal Open Rail Gate
Asset# 10000997

ROUTE: 409

Features Photographs



Photo: SAJO_C4_0433 Route: 409-001-0.0
Begin Section



Photo: SAJO_C4_0434 Route: 409-001-0.02
Plastic WCS Screw Gate 60ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0435 Route: 409-001-0.02
Plastic WCS Screw Gate 60ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0436 Route: 409-001-0.12
Problem Area Road washed out at this point



Photo: SAJO_C4_0437 Route: 409-002-0.03
Begin Section



Photo: SAJO_C4_0438 Route: 409-002-0.34
Plastic WCS Flashboard Riser 40ft long 36in dia. 2ft deep
Asset# NA
8-015

ROUTE: 409

Features Photographs



Photo: SAJO_C4_0439 Route: 409-002-0.34
Plastic WCS Flashboard Riser 40ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0440 Route: 409-002-0.65
Problem Area Roadblock put in by refuge staff

ROUTE: 410

Features Photographs



Photo: SAJO_C4_0441 Route: 410-001-0.0
Begin Section



Photo: SAJO_C4_0442 Route: 410-002-0.96
Begin Section

ROUTE: 411

Features Photographs



Photo: SAJO_C4_0443 Route: 411-001-0.0
Begin Section

ROUTE: 412

Features Photographs



Photo: SAJO_C4_0444 Route: 412-001-0.0
Begin Section



Photo: SAJO_C4_0445 Route: 412-002-0.99
Begin Section

ROUTE: 413

Features Photographs



Photo: SAJO_C4_0001 Route: 413-001-0.0
Begin Section



Photo: SAJO_C4_0002 Route: 413-001-0.42
Metal Open Rail Gate
Asset# 10000997



Photo: SAJO_C4_0010 Route: 413-001-0.96
Plastic Culvert 40ft long 36in dia. 7ft deep
Asset# NA



Photo: SAJO_C4_0011 Route: 413-001-0.96
Plastic Culvert 40ft long 36in dia. 7ft deep
Asset# NA



Photo: SAJO_C4_0012 Route: 413-002-0.92
Begin Section



Photo: SAJO_C4_0013 Route: 413-002-0.94
Concrete WCS Screw Gate 30ft long 24in dia. 5ft deep
Asset# NA 8-020

ROUTE: 413

Features Photographs



Photo: SAJO_C4_0014 Route: 413-002-0.94
Concrete WCS Screw Gate 30ft long 24in dia. 5ft deep
Asset# NA



Photo: SAJO_C4_0015 Route: 413-002-1.05
Metal Culvert 30ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0016 Route: 413-002-1.05
Metal Culvert 30ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0017 Route: 413-003-0.95
Begin Section



Photo: SAJO_C4_0018 Route: 413-003-1.51
Metal Open Rail Gate
Asset# 10000997

ROUTE: 414

Features Photographs



Photo: SAJO_C4_0007 Route: 414-001-0.0
Begin Section

ROUTE: 415

Features Photographs



Photo: SAJO_C4_0008 Route: 415-001-0.0
Begin Section



Photo: SAJO_C4_0003 Route: 415-001-0.39
Problem Area Road is too overgrown to travel

ROUTE: 416

Features Photographs



Photo: SAJO_C4_0019 Route: 416-001-0.0
Begin Section



Photo: SAJO_C4_0020 Route: 416-001-0.0
Metal Open Rail Gate
Asset# 10048353



Photo: SAJO_C4_0021 Route: 416-002-0.98
Begin Section

ROUTE: 417

Features Photographs



Photo: SAJO_C4_0022 Route: 417-001-0.0
Begin Section

ROUTE: 418

Features Photographs



Photo: SAJO_C4_0023 Route: 418-001-0.0
Begin Section



Photo: SAJO_C4_0024 Route: 418-001-0.28
Metal Culvert 100ft long 18in dia. 10ft deep
Pump Station Asset# NA



Photo: SAJO_C4_0025 Route: 418-002-0.98
Begin Section



Photo: SAJO_C4_0026 Route: 418-002-1.74
Metal WCS Other 100ft long 18in dia. 10ft deep
Pump station
Asset# NA



Photo: SAJO_C4_0027 Route: 418-002-1.82
Metal Open Rail Gate
Asset# 10000997

ROUTE: 419

Features Photographs



Photo: SAJO_C4_0028 Route: 419-001-0.0
Begin Section



Photo: SAJO_C4_0029 Route: 419-002-0.02
Begin Section

ROUTE: 420

Features Photographs



Photo: SAJO_C4_0030 Route: 420-001-0.0
Begin Section



Photo: SAJO_C4_0031 Route: 420-001-0.01
Metal Open Rail Gate
Asset# NA



Photo: SAJO_C4_0032 Route: 420-001-0.67
Metal Culvert 25ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0033 Route: 420-001-0.67
Metal Culvert 25ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0034 Route: 420-001-0.93
Metal Culvert 30ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0035 Route: 420-001-0.93
Metal Culvert 30ft long 36in dia. 1ft deep
Asset# NA

ROUTE: 420

Features Photographs



Photo: SAJO_C4_0036 Route: 420-002-0.98
Begin Section

ROUTE: 421

Features Photographs



Photo: SAJO_C4_0037 Route: 421-001-0.0
Begin Section

ROUTE: 422

Features Photographs



Photo: SAJO_C4_0038 Route: 422-001-0.0
Begin Section

ROUTE: 423

Features Photographs



Photo: SAJO_C4_0039 Route: 423-001-0.0
Begin Section



Photo: SAJO_C4_0040 Route: 423-002-0.97
Begin Section



Photo: SAJO_C4_0041 Route: 423-002-1.53
Plastic WCS Screw Gate 100ft long 36in dia. 6ft deep
Asset# NA



Photo: SAJO_C4_0042 Route: 423-002-1.53
Plastic WCS Screw Gate 100ft long 36in dia. 6ft deep
Asset# NA



Photo: SAJO_C4_0043 Route: 423-002-1.54
Plastic WCS Screw Gate 100ft long 36in dia. 6ft deep
Asset# NA



Photo: SAJO_C4_0044 Route: 423-002-1.54
Plastic WCS Screw Gate 100ft long 36in dia. 6ft deep
Asset# NA 8-032

ROUTE: 423

Features Photographs



Photo: SAJO_C4_0045 Route: 423-003-1.97
Begin Section

ROUTE: 424

Features Photographs



Photo: SAJO_C4_0046 Route: 424-001-0.0
Begin Section



Photo: SAJO_C4_0047 Route: 424-002-0.96
Begin Section



Photo: SAJO_C4_0066 Route: 424-002-1.02
Plastic Culvert 120ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0067 Route: 424-002-1.02
Plastic Culvert 120ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0048 Route: 424-002-1.36
Plastic WCS Screw Gate 40ft long 48in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0049 Route: 424-002-1.36
Plastic WCS Screw Gate 40ft long 48in dia. 2ft deep
Asset# NA

ROUTE: 424

Features Photographs



Photo: SAJO_C4_0050 Route: 424-002-1.73
Concrete Culvert 80ft long 24in dia. 4ft deep
Asset# 10048357



Photo: SAJO_C4_0051 Route: 424-002-1.73
Concrete Culvert 80ft long 24in dia. 4ft deep
Asset# 10048357

ROUTE: 425

Features Photographs



Photo: SAJO_C4_0052 Route: 425-001-0.0
Begin Section



Photo: SAJO_C4_0053 Route: 425-002-0.97
Begin Section

ROUTE: 426

Features Photographs



Photo: SAJO_C4_0054 Route: 426-001-0.0
Begin Section



Photo: SAJO_C4_0055 Route: 426-001-0.5
Concrete Culvert 25ft long 18in dia. 2ft deep
Asset# 10048357



Photo: SAJO_C4_0056 Route: 426-001-0.5
Concrete Culvert 25ft long 18in dia. 2ft deep
Asset# 10048357

ROUTE: 427

Features Photographs



Photo: SAJO_C4_0057 Route: 427-001-0.0
Begin Section

ROUTE: 428

Features Photographs



Photo: SAJO_C4_0058 Route: 428-001-0.0
Begin Section



Photo: SAJO_C4_0059 Route: 428-002-0.32
Begin Section



Photo: SAJO_C4_0060 Route: 428-002-0.56
Metal Culvert 20ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0061 Route: 428-002-0.56
Metal Culvert 20ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0062 Route: 428-002-0.76
Metal Culvert 20ft long 36in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_0063 Route: 428-002-0.76
Metal Culvert 20ft long 36in dia. 1ft deep
Asset# NA

ROUTE: 428

Features Photographs



Photo: SAJO_C4_0064 Route: 428-002-1.09
Metal WCS Flashboard Riser 40ft long 18in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_0065 Route: 428-002-1.09
Metal WCS Flashboard Riser 40ft long 18in dia. 3ft deep
Asset# NA

ROUTE: 429

Features Photographs



Photo: SAJO_C4_0068 Route: 429-001-0.0
Begin Section

ROUTE: 430

Features Photographs



Photo: SAJO_C4_0069 Route: 430-001-0.0
Begin Section



Photo: SAJO_C4_0070 Route: 430-001-0.09
Problem Area Road becomes too indistinct to drive

ROUTE: 431

Features Photographs



Photo: SAJO_C4_0072 Route: 431-001-0.0
Begin Section



Photo: SAJO_C4_0073 Route: 431-001-0.06
Metal WCS Screw Gate 50ft long 36in dia. 10ft deep
Asset# NA



Photo: SAJO_C4_0074 Route: 431-001-0.06
Metal WCS Screw Gate 50ft long 36in dia. 10ft deep
Asset# NA

ROUTE: 432

Features Photographs



Photo: SAJO_C4_0071 Route: 432-001-0.0
Begin Section

ROUTE: 433

Features Photographs



Photo: SAJO_C4_0075 Route: 433-001-0.0
Begin Section



Photo: SAJO_C4_0077 Route: 433-001-0.71
Concrete Culvert 50ft long 36in dia. 7ft deep
Asset# 10048357



Photo: SAJO_C4_0078 Route: 433-001-0.71
Concrete Culvert 50ft long 36in dia. 7ft deep
Asset# 10048357

ROUTE: 434

Features Photographs



Photo: SAJO_C4_0411 Route: 434-001-0.0
Begin Section



Photo: SAJO_C4_0412 Route: 434-001-0.0
Metal Open Rail Gate
Asset# 10048353



Photo: SAJO_C4_0413 Route: 434-001-0.15
Metal Cattle Guard
Asset# 10048353

ROUTE: 435

Features Photographs



Photo: SAJO_C4_0404 Route: 435-001-0.0
Begin Section



Photo: SAJO_C4_0405 Route: 435-001-0.48
Plastic Culvert 50ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_0406 Route: 435-001-0.48
Plastic Culvert 50ft long 36in dia. 2ft deep
Asset# NA

ROUTE: 436

Features Photographs



Photo: SAJO_C4_1001 Route: 436-001-0.0
Begin Section



Photo: SAJO_C4_1002 Route: 436-001-0.74
Plastic Culvert 25ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_1003 Route: 436-001-0.74
Plastic Culvert 25ft long 36in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_1004 Route: 436-002-1.01
Begin Section



Photo: SAJO_C4_1005 Route: 436-003-1.97
Begin Section

ROUTE: 437

Features Photographs



Photo: SAJO_C4_1008 Route: 437-001-0.0
Begin Section



Photo: SAJO_C4_1009 Route: 437-001-0.0
Metal Open Rail Gate
Asset# NA



Photo: SAJO_C4_1013 Route: 437-001-0.64
Plastic Culvert 30ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1014 Route: 437-001-0.64
Plastic Culvert 30ft long 36in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1015 Route: 437-001-0.92
Plastic WCS Flashboard Riser 30ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1016 Route: 437-001-0.92
Plastic WCS Flashboard Riser 30ft long 24in dia. 2ft deep
Asset# NA
8-049

ROUTE: 438

Features Photographs



Photo: SAJO_C4_1017 Route: 438-001-0.0
Begin Section



Photo: SAJO_C4_1018 Route: 438-001-0.6
Plastic WCS Flashboard Riser 30ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1019 Route: 438-001-0.6
Plastic WCS Flashboard Riser 30ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1020 Route: 438-001-0.93
Plastic WCS Flashboard Riser 25ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1021 Route: 438-001-0.93
Plastic WCS Flashboard Riser 25ft long 24in dia. 2ft deep
Asset# NA



Photo: SAJO_C4_1022 Route: 438-002-0.38
Begin Section

ROUTE: 438

Features Photographs



Photo: SAJO_C4_1023 Route: 438-002-1.16
Plastic WCS Flashboard Riser 25ft long 24in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_1024 Route: 438-002-1.16
Plastic WCS Flashboard Riser 25ft long 24in dia. 1ft deep
Asset# NA



Photo: SAJO_C4_1025 Route: 438-003-1.09
Begin Section



Photo: SAJO_C4_1026 Route: 438-003-1.35
Plastic WCS Flashboard Riser 30ft long 24in dia. 3ft deep
Asset# NA



Photo: SAJO_C4_1027 Route: 438-003-1.35
Plastic WCS Flashboard Riser 30ft long 24in dia. 3ft deep
Asset# NA

ROUTE: 439

Features Photographs



Photo: SAJO_C4_1028 Route: 439-001-0.0
Begin Section



Photo: SAJO_C4_1029 Route: 439-001-0.0
Metal Open Rail Gate
Asset# NA



Photo: SAJO_C4_1031 Route: 439-001-0.86
Metal Cattle Guard
Asset# NA



Photo: SAJO_C4_1030 Route: 439-001-0.86
Metal Cattle Guard
Asset# NA



Photo: SAJO_C4_1032 Route: 439-002-0.96
Begin Section



Photo: SAJO_C4_1033 Route: 439-002-1.3
Metal Chain Link Gate
Asset# NA

ROUTE: 440

Features Photographs



Photo: SAJO_C4_1034 Route: 440-001-0.0
Begin Section



Photo: SAJO_C4_1037 Route: 440-002-0.97
Begin Section

ROUTE: 441

Features Photographs



Photo: SAJO_C4_1038 Route: 441-001-0.0
Begin Section

ROUTE: 600

Features Photographs



Photo: SAJO_C4_0076 Route: 600-001-0.0
Problem Area Location of Field 6 Drain Road.
Road entrance caved in and washed out. Unable to drive

ROUTE: 601

Features Photographs



Photo: SAJO_C4_0414 Route: 601-001-0.0
Problem Area Entrance to Vierra Unit North Access Road.
Asset number 10048314. Unable to access due to construction

ROUTE: 602

Features Photographs



Photo: SAJO_C4_0407 Route: 602-001-0.0
Problem Area Location of Colwell and Christman Unit
South Access Road. Road too indistinct and overgrown to drive.
Asset Number 10048310

ROUTE: 900

Features Photographs



Photo: SAJO_C4_0358 Route: 900
Metal Open Rail Gate
Asset# 10051991



Photo: SAJO_C4_0359 Route: 900
Metal Open Rail Gate
Asset# 10051991

ROUTE: 903

Features Photographs



Photo: SAJO_C4_0418 Route: 903
Metal Open Rail Gate Electric
Asset# NA

Accident Summary

Number of Accidents Reported	Timespan of Accidents	Injuries	Fatalities
0	No Accidents to Report	0	0

APPENDIX

TABLE 1 - GENERAL FWS ROAD FUNCTIONAL CLASSIFICATION	
Class I	Principal Refuge Road (Public Roads) - Routes that constitute the main access route, main auto tour route, or thoroughfare for refuge visitors. These routes are accessible by 2WD vehicles. Routes are numbered from 10 to 99.
Class II	Connector Refuge Road (Public Roads) - Routes that provide circulation within the refuge. These routes can also provide access to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, education centers, etc. These routes are accessible by 2WD vehicles. Routes are numbered from 100 to 199.
Class III	Special Purpose Refuge Road (Public Roads) - Roads that provide circulation within special use areas such as campgrounds or public concessionaire facilities or access to remote areas of the refuge. These routes may not be 2WD accessible. Routes are numbered from 200 to 299
Class IV	Administrative Access Road (Administrative Roads) - Routes intended for access to administrative developments or structures such as maintenance offices, employee quarters, or utility areas. These routes are accessible by 2WD vehicles. These routes may restrict access to the general public. Routes are numbered from 300 to 399.
Class V	Restricted Road (Administrative Roads) - Routes normally closed to the public, such as maintenance roads, service roads, patrol roads, and fire breaks. These routes may be open to the public for a short period of time for a special use, such as hunting access. These routes may not be 2WD accessible. Routes are numbered from 400 to 499.

A refuge road system contains those routes within or giving access to a refuge or other unit of the FWS that are administered by the FWS, or by the Service in cooperation with other agencies. The assignment of a functional classification (FC) to a refuge road is not based on traffic volumes or design speed, but on the intended use or function of that route

DESCRIPTION OF RATING SYSTEM

Rating Data is collected on four different surface types: Asphalt, Concrete, Gravel, and Native. The Utah LTAP Center's Remaining Service Life (RSL) system is used for all surface types. The RSL system is based on the Strategic Highway Research Program's (SHRP) Distress Identification Manual.

Asphalt Rating System

Data is collected on the following distresses and conditions:

- **Fatigue Cracking** - Interconnected cracks forming small irregular shapes.
- **Longitudinal Cracking** - Cracks running parallel with the roadway, in the direction of traffic.
- **Transverse Cracking** - Cracks perpendicular to the roadway, going across the lane or lanes.
- **Block Cracking** - Interconnected cracks forming large blocks.
- **Edge Cracking** - Cracks running along the edge of the pavement surface.
- **Patches** - Original surface repaired with new asphalt patch material.
- **Potholes** - Holes or depressions in the pavement.
- **Rutting** - surface depressions in the wheel paths.
- **Roughness** - Evenness of pavement for serviceability.
- **Drainage** - Ability of the road surface to drain water based on proper slope.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

Fatigue, longitudinal, transverse, block, and edge cracking, along with patching and potholes are rated on a 0 - 9 scale (0 = no distress, 9 = maximum distress). The rating given is based on the extent and the severity of the distress. Rutting, roughness, and drainage are rated on a 0 - 3 scale (0 = excellent, 3 = poor). Each distress type has given Remaining Service Life (RSL) values (in years) based on the rating for that particular distress. The distress with the rating resulting in the lowest RSL value is considered to be the governing distress. That value is then assigned as the RSL of the road segment.

Concrete Rating System

Data is collected on the following distresses and conditions:

- **Spalling of Joints** - Chipping, breaking, or cracking of slab edges
- **Joint Seal Damage** - Any damage or condition that enables materials or water to infiltrate into the joint from the surface.
- **Corner Breaks** - A portion of the slab separated by a crack that intersects the adjacent transverse and longitudinal joints, forming approximately a 45° angle to the direction.
- **Broken Slabs** - Faulting and/or cracking localized to individual slabs.

- **Faulting** – Difference in elevation across a crack or joint.
- **Longitudinal Cracking** – Cracks in the pavement running parallel to road.
- **Transverse Cracking** - Cracks in the pavement running perpendicular to the direction of traffic.
- **Patch Deterioration** – Faulting, settling, or cracking of previously placed patch
- **Map Cracking** – A series of cracks that extend only into the upper surface of the Slab

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for concrete pavement is the same as that for asphalt pavement described previously. Each of the distresses described above are rated on the same 0 – 9 scale. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Gravel and Native Rating System

Data is collected on the following distresses and conditions:

- **Cross Section (Crown)** - Roadway built so that the center is higher than the shoulder, to prevent water from pooling on roadway.
- **Roadside Drainage** - Roadside ditches and culverts to handle water flow and prevent pooling on the roadside.
- **Corrugations (Washboarding)** - Small trenches or holes developing perpendicular to the roadway.
- **Potholes** - Holes or depressions in the roadway.
- **Rutting** - Depressions running parallel with the roadway, in the wheelpaths.
- **Dust** - Amount of dust caused by traffic.
- **Loose Aggregate (Gravel Only)** - Loose gravel, typically piled up on the roadway edges or centerline.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for unpaved roads is the same as that for asphalt and concrete pavements described previously. Of the distresses described above, corrugations, potholes, rutting, and loose aggregate are rated on the same 0 – 9 scale previously mentioned. Cross section, roadside drainage, and dust are rated on the same 0 – 3 scale described for asphalt pavement. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Condition Descriptions by Surface Type

The following definitions are used to describe pavement condition for the various surface types. These are general guidelines for condition indications.

Asphalt

Excellent – Recently constructed or overlaid road where construction or overlay was performed correctly- No maintenance required. RSL = 19-20 years.

Good – Low extent longitudinal and transverse cracks. All cracks are 1/4" or less with little or no crack erosion. Patches are in good condition and applied correctly. Routine Maintenance recommended. RSL = 13-18 years.

Fair - Roads are in good structural condition with little or no fatigue cracking. Longitudinal, transverse, and edge cracking is at medium extent and severity. Block cracking is not extensive. Any patches are in good condition. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Road beginning to show signs of structural distress. Fatigue cracking is medium to high extent and medium severity. Cracking will be severe. Surface may have severe block cracking and show. Patches are in fair to poor condition. There is moderate distortion or rutting and occasional potholes. Rehabilitation recommended. RSL = 1-6 years.

Failed - Road is severely deteriorated. Signs of structural failure appear along with severe and extensive fatigue cracking, distortion, potholes, or extensive patches in poor condition. Reconstruction recommended. RSL = 0 years.

Concrete

Excellent - New pavement. No maintenance required. RSL = 19-20 years

Good - First signs of transverse cracking, patch or repair, more extensive pop-outs, or scaling. Sealing or routine maintenance recommended. RSL = 13-18 years.

Fair – Pavement has joint or crack spalling, and/or faulting, along with cracking at corners with broken pieces. Any Patches are in fair condition and faulting is at a minimum. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Joints and cracks are open 1 inch, spalled, or patched. Faulting is more severe. Rehabilitation recommended. RSL = 1-6 years.

Failed - Most slabs have failed structurally, and faulting is severe. Reconstruction recommended. RSL = 0 years.11-9

The following table shows the relationship between RSL and condition.

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE (Asphalt and Concrete Pavements)								
	FAILED	POOR		FAIR		GOOD		EXCELLENT
RSL Years	0	1-3	4-6	7-9	10-12	13-15	16-18	19-20

Gravel and Native

Note - Native surfaces do not have a gravel layer.

Excellent - Newly constructed road that has been constructed properly with proper crown, drainage and gravel layer. Little or no distress. No maintenance recommended. RSL = 8-10 years.

Good - Crown, drainage provisions, and gravel layer are in good condition. Distress limited to traffic effects such as dust, loose aggregate, and low severity corrugations (wash boarding). RSL = 5-7 years.

Fair - Adequate drainage and crown through majority of roadway. Crown repair, ditch improvement may be necessary. Road has more severe corrugations and potholes. Preventative maintenance recommended. RSL = 3-4 years.

Poor - Travel at slow speeds is necessary. Additional gravel layer needed to carry traffic. Poor crown. Ditching is inadequate and rutting is extensive and severe. Rehabilitation recommended. RSL = 1-2 years.

Failed - Travel is difficult, and road may be closed at times. Rutting and Corrugations are very severe. Total Reconstruction of road is recommended. RSL = 0 years.

The following table shows the RSL values for gravel and native roads in terms of excellent, good, fair, poor, and failed condition.

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE (Gravel and Native Surfaces)					
	FAILED	POOR	FAIR	GOOD	EXCELLENT
RSL Years	0	1-2	3-4	5-7	8-10

NATIVE PRIMITIVE/IMPROVED RATING SHEET

Cross Section (Crown)*

Severity	Condition		Description
	No Defects	0	Crown 4-6" with no restriction of water flow from centerline to ditch.
	Minor Defects	1	Inadequate or inconsistent crown. Drainage to ditch may be restricted.
	Moderate Defects	2	Flat crown, drainage to ditch restricted.
	Major Defects	3	Reverse crown, bowl-shaped road, drainage on roadway

Rutting

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 6"	1	2	3
	Med 6-12"	4	5	6
	High > 12"	7	8	9

Roadside Drainage*

Severity	Condition		Description
	No Defects	0	Wide, deep ditches (>4') with no restriction to water flow.
	Minor Defects	1	Adequate ditches (>2' deep), minor obstructions restrict water flow.
	Moderate Defects	2	Shallow, narrow and obstructed ditches. Minor erosion of road.
	Major Defects	3	No ditch, drainage on roadway with moderate to severe erosion.

Potholes

Severity	Extent (Area)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 6"	1	2	3
	Med 6-12"	4	5	6
	High > 12"	7	8	9

Dust

Severity	Condition		Description
	No Defects	0	No obstruction to sight distance.
	Minor Defects	1	Sight distance > 550'
	Moderate Defects	2	Sight distance 225'-550'
	Major Defects	3	Sight distance < 225'

Corrugations

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 3"	1	2	3
	Med 3-6"	4	5	6
	High > 6"	7	8	9

* Crown and Drainage are not rated for roads that have no constructed crown or drainage. This applies to Native and Gravel roads.

GRAVEL RATING SHEET

Cross Section (Crown)

Severity	Condition		Description
	No Defects	0	Crown 4-6" with no restriction of water flow from centerline to ditch.
	Minor Defects	1	Inadequate or inconsistent crown. Drainage to ditch may be restricted.
	Moderate Defects	2	Flat crown, drainage to ditch restricted.
	Major Defects	3	Reverse crown, bowl-shaped road, drainage on roadway

Rutting

Severity	No Defects	Extent (Length)		
		Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

Roadside Drainage

Severity	Condition		Description
	No Defects	0	Wide, deep ditches (>4') with no restriction to water flow.
	Minor Defects	1	Adequate ditches (>2' deep), minor obstructions restrict water flow.
	Moderate Defects	2	Shallow, narrow and obstructed ditches. Minor erosion of road.
	Major Defects	3	No ditch, drainage on roadway with moderate to severe erosion.

Potholes

Severity	No Defects	Extent (Area)		
		Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

Dust

Severity	Condition		Description
	No Defects	0	No obstruction to sight distance.
	Minor Defects	1	Sight distance > 550'
	Moderate Defects	2	Sight distance 225'-550'
	Major Defects	3	Sight distance < 225'

Corrugations

Severity	No Defects	Extent (Length)		
		Low <10%	Med 10-30%	High >30%
	Low < 2"	1	2	3
	Med 2-4"	4	5	6
	High > 4"	7	8	9

* Crown and Drainage are not rated for roads that have no constructed crown or drainage. This applies to Native and Gravel roads.

Loose Aggregate

Severity	No Defects	Extent (Area)		
		Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

ASPHALT RATING SHEET

Fatigue Cracking

Severity	Extent			
	No Defects	Low 1 crack WP	Med 2 cracks WP	High >30% length
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Edge Cracking

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	0-6" from curb	1	2	3
	6-18" from curb	4	5	6
	> 18" from curb	7	8	9

Longitudinal Cracking

Severity	Extent			
	No Defects	Low 1 crack full length	Med 2 cracks full length	High >2 cracks full length
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Block Cracking

Severity	Extent (Length)			
	No Defects	Low > 15x15' squares	Med 15-10' squares	High <10x10' squares
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Transverse Cracking

Severity	Extent (ft between cracks)			
	No Defects	Low > 200'	Med 200-50'	High < 50'
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Utility Cuts

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Drainage/Roughness/Rutting

Severity	Condition		Description
	No Defects	0	Wide, deep ditches with no obstructions, smooth ride, no rutting, no potholes.
	Minor Defects	1	Drainage may be obstructed, < 1" rutting, minor roughness.
	Moderate Defects	2	Poor drainage, 1-2" rutting, noticeable roughness, potholes < 6" wide.
	Major Defects	3	No drainage; > 2" rutting; potholes 6-12" wide create roughness requiring reduced speeds.

CONCRETE RATING SHEET

Spalling of Joints

Extent (% joints)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low Spalls < 3"	1	2	3
	Med Spalls 3-6"	4	5	6
	High Spalls > 6"	7	8	9

Broken Slabs

Extent (% slabs)				
No Defects	Low <5%	Med 5-15%	High >15%	
Severity	Low-no more than 3 pieces, no spalling/faulting	1	2	3
	Med-broken into >3 pieces, spalling/faulting <1/4"	4	5	6
	High-4 or more pieces, spalling/faulting >1/4"	7	8	9

Transverse Cracks

Extent (% slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-Cracks < 1/8"; no spalling/faulting	1	2	3
	Med-Cracks 1/8-1/2"; spall <3", fault >1/4"	4	5	6
	High-Cracks > 1/2"; spall >3", fault >1/4"	7	8	9

Joint Seal Damage

Extent (%joints)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low <10% joint length	1	2	3
	Med 10-50% joint length	4	5	6
	High >50% joint length	7	8	9

Faulting

Extent (Length)				
No Defects	Low <10%	Med 10-30%	High >30%	
Severity	Low < 1/2"	1	2	3
	Med 1/2-1"	4	5	6
	High > 1"	7	8	9

Patch Deterioration

Extent (Area)				
No Defects	Low <10%	Med 10-30%	High >30%	
Severity	Low-no fault, no settle at perimeter	1	2	3
	Med-fault & settle <1/4" at perimeter	4	5	6
	High-fault & settle >1/4" at perimeter, cracked patch	7	8	9

Corner Breaks

Extent (% of slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-corner cracks, no spalling or faulting	1	2	3
	Med-crack slightly spalled & faulted <1/4"	4	5	6
	High-crack highly spalled & faulted >1/4"	7	8	9

Longitudinal Cracks

Extent (% slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-Cracks < 1/8"; no spalling/faulting	1	2	3
	Med-Cracks 1/8-1/2"; spall <3", fault >1/2"	4	5	6
	High-Cracks > 1/2"; spall >3", fault >1/2"	7	8	9

Map Cracks

Extent (Area)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-small connected cracks, no spalling	1	2	3
	Med-connected cracks, no spalling	4	5	6
	High-large connected cracks with surface spalling	7	8	9

Deficiency Ratings With Associated Remaining Service Life

Asphalt Rating Sheet

Fatigue Cracking		Edge Cracking		Transverse Cracking		Utility Cuts	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20	0	20
1	10	1	12	1	14	1	14
2	8	2	10	2	12	2	12
3	6	3	8	3	10	3	10
4	8	4	10	4	12	4	12
5	6	5	8	5	10	5	10
6	4	6	6	6	8	6	8
7	6	7	8	7	10	7	10
8	2	8	6	8	6	8	6
9	0	9	4	9	2	9	2

Longitudinal Cracking		Block Cracking		Drainage/Roughness/Rutting	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20
1	14	1	12	1	16
2	12	2	10	2	10
3	10	3	8	3	4
4	12	4	10		
5	10	5	8		
6	8	6	6		
7	10	7	12		
8	8	8	6		
9	6	9	2		

Concrete Rating Sheet

Spalling		Broken Slabs		Transverse Cracks	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20
1	15	1	15	1	18
2	12	2	12	2	15
3	10	3	10	3	12
4	12	4	12	4	15
5	10	5	10	5	10
6	8	6	8	6	6
7	10	7	10	7	10
8	6	8	6	8	4
9	0	9	0	9	0

Joint Seal Damage		Faulting		Patch Deterioration	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	18
1	16	1	15	1	16
2	14	2	12	2	14
3	12	3	10	3	12
4	14	4	12	4	12
5	10	5	8	5	10
6	8	6	6	6	8
7	12	7	10	7	10
8	8	8	4	8	6
9	6	9	0	9	0

Corner Breaks		Longitudinal Cracks		Map Cracks	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	18	0	20	0	20
1	16	1	18	1	18
2	14	2	15	2	15
3	12	3	12	3	12
4	12	4	15	4	12
5	10	5	10	5	10
6	8	6	6	6	6
7	10	7	10	7	10
8	6	8	4	8	4
9	0	9	0	9	0

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE IN YEARS (Asphalt & Concrete Roads)

RSL	FAILED 0	POOR 1 - 6	FAIR 7 - 12	GOOD 13 - 18	EXCELLENT 19 - 20
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Deficiency Ratings With Associated Remaining Service Life

Native Primitive Improved Rating Sheet

Cross Section		Rutting		Roadside Drainage	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	7	1	9	1	8
2	5	2	7	2	4
3	0	3	5	3	0
		4	7		
		5	4		
		6	3		
		7	4		
		8	2		
		9	0		

Potholes		Dust		Corrugations	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	9	1	8	1	9
2	7	2	6	2	7
3	5	3	2	3	7
4	7			4	6
5	4			5	5
6	3			6	5
7	4			7	4
8	2			8	3
9	0			9	0

Gravel Rating Sheet

Cross Section		Rutting		Roadside Drainage	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	7	1	9	1	8
2	5	2	7	2	4
3	0	3	5	3	0
		4	7		
		5	4		
		6	3		
		7	4		
		8	2		
		9	0		

Potholes		Dust		Corrugations	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	9	1	8	1	9
2	7	2	6	2	7
3	5	3	2	3	7
4	7			4	6
5	4			5	5
6	3			6	5
7	4			7	4
8	2			8	3
9	0			9	0

Loose Aggregate	
Distress Rating	Remaining Service Life
0	10
1	9
2	8
3	7
4	8
5	7
6	6
7	5
8	3
9	0

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE IN YEARS (Gravel & Native Roads)

RSL	FAILED	POOR	FAIR	GOOD	EXCELLENT
	0	1 - 2	3 - 4	5 - 7	8 - 10